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# MALIGNANT PUSTULE.

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*Read before the Southern California Medical Society, June 1, 1892.*

In most localities in the civilized world fortunately the bacillus of anthrax plays a very unimportant part in the practice of the average physician. It is principally in sheep and cattle raising countries and in cities which are great wool and leather manufacturing centres that we are called upon to treat malignant pustule. Except in rare instances where it has been communicated from one human being to another, it always arises from handling some portion of an animal affected with splenic fever, or by coming in contact with animals or objects which have previously been in contact with such animal or its carcass.

This disease is generally known among cattle men as murrain. The term is not properly applicable as it signifies nothing definite, being comprehensive of four entirely different diseases: splenic fever, rinderpest, pleuro-pneumonia, and foot and mouth disease. Splenic fever, the disease under consideration, is due to a specific microörganism, the bacillus anthracis, first discovered by Pollender, of Dorpat, and demonstrated in its bacteriological qualities, relations, growth, cultivation, and attenuation of virus, principally by Davaine, Pasteur, and Koch. It affects wild as well as domesticated animals. Only carnivorous creatures seem to be immune from its ravages.

There are two forms of the disease, an internal or general, known as splenic apoplexy, and in which there are no visible external lesions; and a local or external, known as malignant pustule.

The symptoms of the internal form appear suddenly when the animal appears to be in perfect health, being those of a sudden paralysis of the pneumogastric and of the vaso motor nerves, and consisting of a very rapid pulse with loss of force and volume, hurried breathing, and effusion of the contents of the blood-vessels into and beneath the mucous membranes and the serous cavities. The pulmonary capillaries are blocked with the bacilli, and edema of the lungs is present, the limbs tremble, the animal with fixed eyes surrounded by dark rings, falls to the ground. There may be rigors, vomiting, cold perspiration and the exhaustion so characteristic of profound septicemia. Death usually comes on in a few hours. If the animal be bled during life, the flow will be slow, scant, very dark and thick.

*Post-mortem*, the spleen is found enormously engorged and frequently ruptured, and its consistence and appearance is much that of coal tar. The mucous membranes are blackened from the leaking of the blood into the tissues beneath them. The blood is black and semi-fluid in the heart and great vessels, while the capillaries are filled with colonies of the bacillus anthracis to such an extent as often to completely occlude them, and serve the purposes of an injecting material. The blood has been robbed of its vitality by these hungry hordes of aerobic creatures which have greedily consumed the oxygen of the blood corpuscles, while the serum has served as a culture medium for their spores, and deoxidation and defibrination accomplished simultaneously has turned the blood into a blackish semi-liquid and disorganized mass, unequal alike to support the life of the phagocyte or the parasite.

The bacillus anthracis has been and is a great favorite with bacteriologists, because its manipulation and culture is so simple, and the results so uniform and satisfactory. Hence I shall not tire you by repeating a description of its microscopic peculiarities, which may be found in any work upon bacteriology. The extreme tenacity of life and growth exhibited by its spores is marvelous, and constitutes its most dangerous characteristics. No degree of cold destroys these spores. In the moist state exposure for a short time to the boiling point of water does not affect their vitality, and when dry no degree of heat, short of actual combustion, will suffice to kill them. That their power of multiplication, growth, and infection may be retained for years is well proven in Arles, Savoy, and some of the Swiss cantons, where whole regions were formerly known by the name of this disease before it was discovered that destruction of the entire carcass of an animal, dying of splenic fever, by fire is the only protective against its recurrence.

Deep burial will also arrest the action of the bacilli and prevent sporulation. The depth must be beyond the limits of a free supply of oxygen, and below a temperature of 24° C., which is the lowest favorable temperature at which the spores form and develop. The character of the soil or water has absolutely nothing to do either with the spread of the disease or its production, the one essential element being the presence of the bacillus anthracis, or its spores and their toxalbumins.

This disease was introduced into Southern California by an importation of bucks from the southwest of France about twenty years ago, and rapidly spread until it at one time affected nearly half the ranges, and was extremely destructive. It is very prevalent yet, and there are ranges rendered useless for grazing, either by cattle or sheep, by reason of the infection of the ground by animals dead from splenic fever, and year after year, and in some cases after many years, the disease has reappeared in the flocks feeding upon these ranches.

As the internal form results from the spores taken into the stomach or lungs in water, food, or air, the local or external form follows inoculation upon some portion of the abraded skin or mucous membrane about the mouth, tongue, lips, jaw, neck, breast, or shoulders of the animal. This commences as a small papule or tumor, which, in a few hours, is crowned with a vesicle, oozing bloody serum, and rapidly becomes gangrenous. Proper surgical measures at this period will usually cure the disease. Allowed to remain undisturbed for a week or so, the bacilli find their way along the lymphatics and veins into the general system, and death results as in the internal form.

Pasteur successfully secured an attenuated virus of the bacillus anthracis and used it by inoculation as a protective against the spread of splenic fever in the flocks and herds of France. For a long time this was believed to be accompanied by success, but of late much doubt has been cast upon its salutary influence, as it appears from recent investigation that it does not prevent the usual method of infection, by the intestinal channels. I believe that to the concomitant spread of the knowledge of the necessity of destruction of all parts of the carcass of an animal dying of this disease by fire, and the protective influence of carbonate of soda, used in the drinking water, has been due, more than to the inoculation of an attenuated virus, the decrease of charbon in France.

As would be inferred from what I have said, the local form of splenic fever—malignant pustule—is of frequent occurrence among human beings in California, and presents to us, consequently, a subject of much interest. Some of you have seen few, others many cases of this disease, and perhaps there are those among us to whom the malady is entirely unknown. This paper is based upon a series of 170 cases occurring in the practice of Dr. Hubert Nadeau, of Los Angeles, during the past seventeen years, and 19 cases occurring in my own practice during the past six years in the same city. The greater number of these cases were in French or Basque shepherds and herders. Cases occur at all seasons of the year, but are more frequent in the late summer and autumn months.

Malignant pustule is communicated from animals to man: (1) By immediate contact with animals dead of splenic fever, or with some portion of such animal. This contact is usually the result of criminal parsimony upon the part of the owner of the flock or herd in which the animal has died. About two-thirds of our cases resulted from the skinning of the carcasses of such animals by those having charge of them, and upon the orders of their superiors. Two cases I saw last autumn were contracted by father and son. English emigrants, while removing the hide of their only cow, which had died suddenly, they being ignorant or indifferent as to the cause of her disease. It is not alone those who remove the skins from the carcasses that suffer from the exposure, but stevedores upon the docks who handle the hides, tanners preparing them, plasterers, upholsterers and wool-sorters handling the hair months afterward and upon another continent, have become victims of the disease by contact.

The process of tanning is usually supposed to destroy the bacillus, but the first case I ever saw, at the clinic of the late Prof. Agnew, at the Hospital of the University of Pennsylvania, sixteen years ago, was upon the foot of a man who wore a new and cheap pair of boots without stockings, and the disease was attributed to the leather coming from the hide of an animal dying with malignant pustule.

Dr. Nadeau saw one case in which the victim was a wool-buyer, and having used some wool to cleanse his fundament, became attacked with malignant pustule upon the anus. The latest and entirely unique case in literature, reported in this class, comes from the Seaman's Hospital, at Greenwich, in which the disease was contracted upon the arm of a laborer while handling bags of manure. Death resulted in four days.

(2) The disease is acquired by intermediate contact as instanced frequently where it has been carried by flies which have been feeding upon the flesh and blood of animals affected with splenic fever. We have met with a number of cases which undoubtedly arose in this manner. One of these was upon a well-known local politician, who, three years ago last autumn, was bitten by a blue-bottle fly, while driving through the beautiful ranch of a man noted among sheep men in Southern California, as one who almost constantly has cases of splenic fever in his flocks, and who is also said to lose no wool or skin because his animals die of this disease. In one of my cases the victim, a Basque shepherd, attributed his infection to his having skinned a coyote, which he had shot shortly after it had fed upon the body of a sheep which had died of splenic apoplexy, or *sang*, as he called it.

The elder Gross mentions a curious and revolting instance of infection by intermediate contact, in which three persons engaged in skinning buzzards with the object of obtaining their oil, contracted malignant pustule, though the birds themselves presented no evidence of the disease. Dr. Hayes Agnew reports a case in which the infecting agent was a handkerchief used six months previously to apply alcohol to the face of the woman's husband who died of the disease.

Further it has been claimed that the poison may be transmitted by the milk and butter of diseased cows. This is stated in works upon the subject, and I could conceive that in cases of the local form with the seat of the pustule upon the udder of the cow it might be true. But the general form of splenic fever is so rapidly fatal that I should fancy the owner would have but little opportunity to milk his cows before they died. Upon this subject of the disease being conveyed by the cooked meats of animals dying of it, I may state that I believe from observation such flesh may be used as food with impunity if only it be subjected to a thorough boiling or roasting. The basis of this belief is that about three years since I was called upon to prevent the sale of the meat of a cow which was believed to have died of splenic fever. I found the butcher, into whose hands it had passed, keenly alive to the danger of handling the meat, but entertaining the idea that it could do no harm to the consumers if it were properly cooked before eating. Upon following up this clue I found that the Basque herders frequently consume the choice portions of animals dying from malignant pustule, taking only the precaution of thoroughly cooking the flesh.

As in cattle and sheep so in man we have the internal form of the disease, or splenic fever, existing. The contagion is conveyed in these cases by dust, containing the bacillus anthracis or its spores, being breathed into the lungs or swallowed in food or water. I have never seen a case of this kind nor did Dr. Nadeau mention to me that he had observed any. We should rather expect to find them among the operators in woolen mills and hair factories, and a number of interesting cases occurring in such places are reported; the symptoms appearing to be about the same as those I have described as diagnostic of the disease in animals. The sudden onset of such symptoms and the rapid caving in of the whole physical system in the midst of health and while engaged in handling wool or hair is almost pathognomonic of splenic fever in human beings.

The symptoms of malignant pustule are that in 24 to 48 hours after inoculation there appears at the point where the virus has entered the skin, a small papule, which itches and burns severely. This inflamed spot has in its centre invariably a minute gangrenous point which gives to the lesion much of the appearance of the bite of a flea or other insect, for which it is usually mistaken in this stage. In an hour or so there is raised upon this papule a small vesicle which enlarges rapidly and soon bursts, exuding a thin and brownish-yellow bloody serum.

There is a decided tendency for this blackish, or blue-black, central eschar to dry up, forming a hard mass of necrosed tissue, which cuts under the knife like sole leather. The process extends upon the periphery by the formation of a ring or zone of smaller vesicles of a similar character surrounded by a brownish-red areola and accompanied by considerable infiltration and tumefaction of the adjacent cutaneous connective tissues. Up to this period, which may have lasted a week or ten days, there have been no alarming general symptoms, as the lesion is usually painless and accompanied by little or no fever. But now there supervenes a rapid invasion of the cellular and muscular tissues, the formation of extensive sloughs, burrowing of pus in the inter-muscular septums, involvement of the lymphatics, rigors, fever, rapid prostration and the general symptoms of profound septic poisoning.

*Diagnosis.*—The sudden appearance upon the hands, face, or other exposed part of the body, of such a lesion when occurring in a person whose business brings him closely in relation to animals, but more particularly to sick and dead animals, or who handles animal products, should always awaken the suspicion of malignant pustule.

The diseases for which it may be mistaken are certain poisonous dermatites arising in this class of people from contact with strong poisons, such as solutions of arsenic, potash, corrosive sublimate, or lime used to destroy parasitic diseases of the skin in cattle or sheep. These chemical irritations do not present the distinctive progress of the local lesion of malignant pustule. Inoculation of a portion of a sore beneath the skin of a rabbit or sheep, if it be malignant pustule, will result in the production of a similar lesion inside of a week. A microscopic examination of the debris will demonstrate the presence or absence of the bacillus anthracis.

From carbuncle it may be diagnosed by attention to the following differential points:

*Carbuncle.*—1. situated generally in the thickened skin of the posterior portion of the body, but especially the back of the neck, back or buttocks.

2. Occurs usually in old or previously debilitated subjects of any occupation.

3. Preceded by a chill, accompanied by fever and great pain.

4. Commences as a dense, dull, red papule, which becomes the seat of a moist, brownish or purplish necrosis.

5. Not usually surmounted by a vesicle.

6. Staphylococcus pyogenus aureas.

*Malignant Pustule.*—1. Occurs generally upon the hands, face, arm, or other exposed surfaces of the body.

2. Occurs usually in the prime of life in previously healthy subjects who work with cattle, sheep, or their products.

3. Not preceded by chill, accompanied by little or no fever, painless, itches severely.

4. Commences as a maculo-papule, with a small gangrenous central patch present, from the earliest period of observation.

5. Central vesicle always present, which ruptures, leaving a harsh, dry and insensible centre of necrosis.

6. Bacillus anthracis.

Prognosis in the local form, unless the seat of the lesion be upon the face near the throat, is excellent, if the patient be seen within the first week. In the general or internal form death almost always follows within 48 hours.

The mortality in the local form under proper treatment is a little more than 1 per cent. Out of 189 cases seen by Dr. Nadeau and myself, two died. Of the fatal cases, in the first, which occurred in 1879, the lesion was situated upon the chin. Death took place from asphyxia, due to a rapid involvement of the cellular tissue of the neck. In the second case, which occurred in 1890, the individual was already in poor health when attacked by the disease. This pustule was situated upon the forearm, the deeper tissues became rapidly involved, extensive sloughing and slow purulent infiltration of the intermuscular septa followed, the patient eventually dying of the pyemia of general splenic fever.

The treatment we have followed has been, after carefully cleansing the part, to apply thoroughly pure carbolic acid to all parts of the pustule, This is done either upon a swab, wiped into multiple incisions, made through the entire extent of the lesion into the sound flesh beyond, or by hypodermic injections with a Pravaz syringe in the total circumference of the line of its areola. I have used as much as two drachms of pure carbolic acid injected in this manner without any evil effects. The dressings used afterwards have been warm moist ones, and either 2 per cent. carbolic, or 1:1000 corrosive sublimate gauze, enveloped, preferably with a rubber or oil-silk protective. The slough usually separates in about a week, and the resulting ulcer is treated in the ordinary antiseptic manner. In one of my cases I used peripheral hypodermic injections of a 1:100 solution of corrosive sublimate, but it was painful, and did not seem in any way superior to carbolic acid. Then, again, I was fearful while using it lest I might poison my patient, and hence I have since preferred to adhere to the carbolic acid treatment.

Dr. Nadeau in two cases used 2 per cent. solutions of bromine with success, but, though the cases got well, he was not very favorably impressed with this method.

Internally we administer fair doses of quinine, from 8 to 12 grains daily, and use diffusible cardiac stimulants, with the best obtainable nutritive food.

10 Burdick Block.

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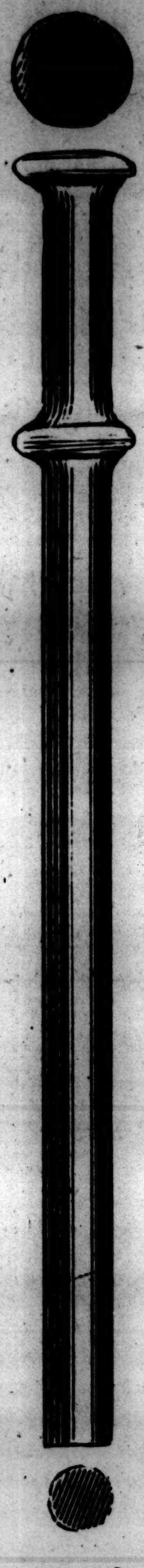
## REMOVAL OF A GLASS ROD, FOUR INCHES IN LENGTH, FROM THE BLADDER.

By T. M. TODD, M.D., Auburn, Cal.

F. S——, æt. 49 years; unmarried, a native of Finland; occupation, miner; was admitted to the Placer County Hospital March 7, 1892. He stated that he lived in a cabin in the mountains about 25 miles from

Auburn, and that he was engaged in mining. On March 6th, as he could not make his water (?), he passed "a glass bougie" (evidently the handle of a glass syringe), into his bladder, and broke the glass rod in the bulbous portion of the urethra near the neck, the part remaining in the bladder being about 4 inches long—as shown in the accompanying engraving. He also stated that a doctor in San Francisco had given him the so-called "glass bougie" 15 years previously to pass for stricture of the urethra, and that he had thrown away the other part of the glass rod after breaking it, which was also 4 or 5 inches in length.



On March 8th, assisted by Dr. F. Jones, the patient was anesthetized and placed in the lithotomy position, and an effort was made to extract the fragment through the urethra with long flexible forceps, but the attempt failed. I then passed a lithotomy guide and made an incision into the bulbous portion of the urethra about an inch and a half long, midway between the base of the scrotum and anus. The finger passed easily into the urethra through the incision and on towards the bladder, and I was able to touch the end of the glass rod sticking in the neck of the bladder. By passing a pair of forceps along my finger as a guide, I succeeded in getting hold of the end of the fragment and removed it through the incision; the wound was sutured with silk, and a silver catheter passed into the bladder and secured by tapes for 24 hours. It was then removed, and the patient catheterized as often as needed for eight or ten days, when the wound was found to be closed. He was discharged from Hospital on March 26, 1892. I may add that there was no stricture, but on the contrary the urethra was very markedly large throughout its entire course. The glass rod had been passed into the bladder with the large bulbous end first. I leave it to those who may read this sketch of the case to surmise the object of the patient in introducing such a thing into his penis.

## A CASE OF FATAL INJURY TO THE BRAIN, CAUSED BY A BLOW FROM THE SMALL END OF A BLACKSMITH'S HAMMER.

By G. L. SIMMONS, M. D., Sacramento, Cal.

*Read before the Sacramento Society for Medical Improvement.*

Very early on the morning of May 11, 1891, I was called to attend R. A——, a man aged 65 years, at his home on Seventh street. I found him in bed with slow, feeble pulse, cold skin and extremities, and a constant tendency to yawn. Upon his head, about two inches above and behind the right ear, there was a contused and punctured wound, the size of the contusion might be represented by the closed fist of the patient. The punctured portion was sufficiently large to admit the point of my index finger. An examination with a probe showed a fracture of the skull the extent of which was apparently limited, and, as in one portion I felt a slightly raised concave border, I came to the conclusion that the small end of an eight-pound blacksmith's hammer, which I was then told had been used to produce the injury, might indicate its extent.

Owing to the shock and other evidences of vital depression, I questioned him but little during that day; taking the usual measures after dressing the wound to restore the circulation. The next day his general symptoms were much improved and he started to give me a connected statement of the murderous assault which had been made upon him by robbers who had stolen several hundred dollars. During the narration, he complained of dizziness and a curious feeling over his eyes, and it was stated that in attempting to use the vessel he had fallen upon the floor. I directed him not to attempt to assume the upright position, drew off his urine and ordered 10-gr. doses of bromide of potash every three hours.

He complained of no particular pain in the wound (which was draining rapidly) but said he could not see as usual. I allowed more light to enter his bedroom and noticed he had considerable photophobia. Thinking the glasses he was in the habit of wearing might correct his imperfect vision, he insisted upon trying them and was much disappointed to find that the lenses did not improve his sight. While following my examinations he pulled me down in close proximity to his head and whispered into my ear that Gov. Stanford was investing a large amount of money for him in Washington, D. C. In answer to my inquiry as to the amount, he replied: "Several millions of dollars." He also stated that the old Lull House, on the corner of Seventh and I streets, had been moved to the northwest corner of H street, directly opposite his own residence, and this delusion, coming on soon after the accident, was maintained throughout all his illness, and even when he went upon his porch and could prove the incorrectness of this idea.

During the next ten days the wound continued to improve under injections of peroxide of hydrogen (Marchand's) into the drainage tube and antiseptic dressings. The use of the bromide was continued, the bowels and diet regulated, and the patient kept in bed in a moderate light and guarded from intrusion or conversation except with members of his family. He often remonstrated against my orders that he must be quiet and said he would go out and attend to his business and help to convict the rascals who had assaulted him.

With an apparent want of any active symptoms about the wound or indications of fever, headache and nausea, there was an increase of delusions, and always upon the subject of money. While still persisting that Gov. Stanford was his agent in handling his great fortune, he stated that his local business interests were bringing him large sums of money and would call my attention to the bag of gold he thought he was guarding in the centre of his bed. No matter how long we tried to attract his attention by talking upon other subjects, he would revert to his treasure and the necessity for him to look out for the rogues who were trying to rob him. Soon afterwards he began to charge an honest and capable nurse who was watching him, with an attempt to steal his money. In vain I called his attention to the fact that the man had been trusted for years and that he (the patient) had no gold with him. He still persisted in the belief to such an extent that for long periods of time he would keep his eyes upon the suspected nurse whom he finally abused and assaulted.

When sitting up he complained of foggy and double vision, with a feeling of weight pressing upon his eyes. There were at no time any paralyses, vomiting, or difficulty of articulation, and apart from his delusions I saw no reason to believe that there was danger to his life. A change of nurses now took place and the new attendant is recognized by the profession as being particularly honest, capable and careful. For 24 hours the patient remained quiet, but soon afterwards began to be morose and suspicious, and told me the new colored nurse was in league with the old one and during the night had gotten away with a bag of his money.

About the end of the fourth week I talked with him concerning a social, event which was to take place in my own family, and asked him to allow his daughter to attend. He manifested the greatest interest in the matter and said she must go by all means. His inquiries in relation to the affair were natural and suggested to me a possible favorable change in his mental condition, but immediately afterwards he reverted to his wealth, which he said the nurses were trying to obtain. Occasionally he would have fits of anger, with loud talking or screaming, which would attract the attention of passers-by.

On the 20th of June Drs. Cluness and Huntington were called in consultation. The situation of the wound which had been healed for a fortnight was observed, and a full examination made of the physical and mental condition of the patient. The double vision was particularly noticed and tested. His answers to most of the questions put to him were fairly intelligent, but his delusions were strong and persistent. At the consultation no one suggested the idea that an operation for trephining was indicated, or would in any way relieve the insane symptoms. The opinion was given that the delusions would probably continue for an indefinite length of time.

As the fourth of July was approaching the small boy began cracker firing, and it was noticed that the unusual noise was a source of great discomfort to the patient, and favored long hours of wakefulness. The paroxysms of violence also increased, and it was decided to remove him to a private hospital in Stockton. At this time his gait, when attempting to walk, was straddling and feeble, and the head had a constant tendency to fall forward. Occasionally he would burst into tears when a reference was made to his condition. The removal was effected on the 1st of July. On the 9th, or about ten days after he left his home, the operation of trephining was performed near the site of the original fracture, and for a continued history of the case I will quote from a report of Dr. Rucker, of the State Insane Asylum at Stockton, who made the autopsy:

"The patient rallied well from the ether which had been administered, but without any apparent change in his mental condition. He lay much of his time in a quiet, unconscious state, and was not at all sensible of his surroundings. A few days after the operation he seemed slightly improved, and would occasionally answer a question with seeming intelligence. After a lapse of about two weeks he seemed to grow worse, and showed unmistakable evidence of meningitis. He was much of the time restless and apparently in pain. His breathing became interrupted, and there was marked Cheyene-Stokes phenomena. There was a tendency for the head to be drawn back, and the patient at times took food with difficulty. The calls of nature were obeyed in an involuntary manner. The patient was apparently in a dying condition for about 18 hours, and about 14 hours before death took place the pulse could not be felt in the left wrist, and but very slightly in the right. Death was very gradual, and took place about 10 o'clock Friday morning, July 31st.

"An inquest was held, and an autopsy made about 10 hours after death. The body was in a fairly nourished condition, and rigor mortis was not very well marked. The wound in the scalp was entirely healed. The calvarium was removed with considerable difficulty on account of the strong adhesion of the dura mater. The scalp was very thick and tough, and the skull of rather more than medium thickness. The centre of the hole in the skull was 1½ inches to the right of the sagittal suture. The dura mater was very much thickened under the opening in the skull, but was not at all adherent to the brain substance. The hole in the skull, including the small spot made by the trepan, measured 1¼ inches long by ⅞ of an inch broad. The dura mater showed strong evidences of inflammation, and was very strongly and extensively adherent to the brain where the pacchionian bodies are located. The blood vessels of the brain were carefully examined and were found to be healthy, but wonderfully engorged with blood, and there was a great deal of effusion.

"Very careful search was made for an abscess or other evidence of disease, but nothing worthy of note was found, except a slight softening on the front part of the brain on the right side. The remote cause of death was the blow which the patient had received, while the immediate cause was due to engorgement and effusion; the result of cerebromeningitis. The symptoms of insanity which were present soon after the patient received the injury were evidently due to molecular change resulting from the violent concussion."

## REMARKS.

This case is one of considerable importance not only from its symptoms and termination, but from the fact that a good deal of public attention had been called to its medico-legal aspects. The question at issue is one connected with surgical interference, or was the operation of trepanning indicated at the seat of the blow either in the early history of the case or when pathological changes had occurred at a later period. As I examined the wound, and day by day noticed its character, it appeared to be of no particular importance when compared with the prominent symptoms always associated with injuries and diseases of the front brain. That a violent blow on the back of the head should produce molecular changes in the prefrontal region, is a well known fact generally recognized in cerebral surgery. In this case the injured bone healed rapidly and apparently soundly under the usual treatment, and when seen by the consultants, about five weeks after the assault, presented no important depression, or any indication that the tissues (originally injured) were unsound.

I could not believe in the theory that there was a blood clot under the point of fracture, or that pressure in that region would cause the symptoms of *continued intellectual mania*, which were so early a prominent feature in this case. In the beginning I stated, when questioned by the authorities: that I believed the patient would survive the wound, but I could not but fear that his mind would be more or less impaired. If any error of judgment occurred here, it was from not fully considering the age of the patient and the fact that injuries to the brain are not easily repaired after the age of sixty. Concerning the policy of early or late trepanning in this case, I will say that, as a rule; when a fracture of the skull is discovered, with more or less depression, and the prominent head symptoms are not early associated with possible lesions at a point opposite to or remote from the bone injury, trepanning should be resorted to. It is a simple operation and attended by no particular risk. In this case, however, the indications pointed to molecular changes far removed from the seat of the blow, and I always maintained to the family and its representative that no operation near the fractured bone would reach the cause of the maniacal disturbance.

The results shown at the *post-mortem* examination, I am sure, established the correctness of this view. As seen by the gentlemen present at the autopsy, there were no evidences of compression by a blood clot, or injury to the brain, under the dura mater at the point of fracture. The *inferior* surface of this hard membrane was free from any adhesion or apparent injury, except from a small brown spot which indicated the passage of the hypodermic needle, inserted there to determine whether or not a clot was resting upon the brain. In the frontal portion, however, adhesions more or less firm existed, and on the right frontal region, for about the size of a dime, there were well-marked evidences of softening.

There is an interesting feature of this case in connection with the localization of cerebral disease. The *form* of mania, with the absence of paralyses, indicated intracranial trouble in that portion known as the prefrontal region. The *post-mortem* evidences were certainly in harmony with the results of experimental physiology. Another matter of interest is in connection with the well-marked symptoms of double vision. Although the causes for this condition are not all agreed upon by the latest observers, it is admitted by such men as Hughlings Jackson, and others equally eminent, that local inflammatory attacks on the anterior brain are generally accompanied by double vision, which was so prominent a feature in this case.

212 J street.

## THE VAGINAL DOUCHE IN NORMAL LABOR CASES.

By C. E. Cooper, M. D., San Francisco, Cal.

*Read before the San Francisco Gynecological Society.*

It is one of the evidences of a healthy activity in medical science that it is constantly changing. New ideas are taken up and investigated, given an abiding place in the estimation of the profession, or consigned to oblivion, according to their proven worth, with startling rapidity. In nothing, perhaps, is this so strikingly shown as in the case of antisepsis. While some of the most conservative of the profession still regard it with but doubtful favor, others have taken it up enthusiastically, perhaps even foolishly, and have thought that nothing could be done without the use of antiseptics. In the more deliberate investigations of later times, however, antisepsis is evolving into asepsis. For a time, antiseptic vaginal douches were considered part of the routine in normal labor cases, but it has now been shown, upon the highest authority, that these douches are not only unnecessary but dangerous, when used indiscriminately, and that their use should be very much restricted.

In a series[1] comprising 7,693 cases of confinement, and extending from May 1, 1884, to the end of 1889, Prof. Leopold, of Dresden, shows the following: (1) That the most favorable cases of confinement *i. e.*, those most generally free from puerperal infection, were those in which, during the whole confinement, there was absolutely no vaginal manipulation, either for purposes of investigation or for disinfectant douches. (2) That the next most favorable cases were those in which there was internal examination during the puerperal period, carried out under the strictest antisepsis, and with the most thorough cleansing of the sexual organs, but in which there were no disinfectant douches. (3) That the most markedly unfavorable cases were those which, having been examined under the same strict antiseptic precautions as in group 2, were, in addition, subjected to disinfectant douches.

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[1] Arbeit aus der Kgl. Frauenklinik in Dresden. Ueber die Entbehrlichkeit der Scheiden-ausspülungen und-Auswaschungen bei regelmässigen Geburten. von Prof. Leopold.

These results, he says, are not mere theory, but are based upon carefully tabulated cases, systematically observed, involving a very large number of confinements, and extending over a long period of time. On this account, and also because similar conditions led to similar results in the different years of the tables, there is a practical deduction to be made: (*a*) the possibility of self-infection during the puerperal state; (*b*) certain rules for the protection of regular, normal labor cases from puerperal infection.

As the most important requisites for this protection, Leopold gives: (1) The greatest possible limitation of internal (vaginal) manipulation and a more extended use of external (abdominal) palpation, when necessary, for determining the presentation and position. (2) The strictest subjective antisepsis and the complete removal and keeping away of every kind of defilement from the external genitalia during the whole of the confinement and the puerperal period. (3) Most particularly, a very careful cleansing and disinfection of the external genitalia and their neighborhood before each internal manipulation. (4) Disinfectant washing out of the vagina in normal cases is as dangerous as it is useless, and is emphatically, only to be allowed, when by some means an infection has already, in all probability, taken place.

These are strong grounds to take, and yet the skill and position of Leopold, and the thoroughness and care in his work make his statistics accurate, and lend force to whatever deductions he draws from them. The limits of this paper prevent quoting the extensive tables he gives[2], but they are easily accessible.

To any one who has attempted to make a pure culture in bacteriology, the extreme difficulty of rendering the hands aseptic must be evident. A few dashes with soap, hot water and a dirty brush, with a dip into water perfumed with carbolic acid is not sufficient. In Germany, where such questions have received most attention, it has been determined that the hands cannot be rendered aseptic in less than eight minutes. A thorough washing with hot water and soap, followed by immersion and scrubbing in sublimate solution (1 to 1000), will, it is true, kill the bacteria present on the hands at the time, but a longer period, and the continued action of sublimate or some other antiseptic, are required to destroy bacteriological spores, which are much more resistant than the bacilli.

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[2] Loc. cit.

If we kill all bacteria upon our hands and instruments, and still introduce living spores, they in due time develop into bacteria, and, if they find a suitable soil, multiply with amazing rapidity, setting up an infection. This difference between spores and bacteria is undoubtedly the explanation of many cases of puerperal fever, in which, though the accoucheur's hands had been washed in sublimate solution; he had not washed them long enough to kill spores as well as bacteria.

So, too, we see the importance of thorough and persistent disinfection of the external genitalia during the puerperal period. If this were not carried out infection would be liable to occur at any time. In regard to the use of the douche, the wonder is that it has not been followed by more disastrous results in the past, than has been the case. It has been proven in Koch's laboratory that many bacteria and almost all spores can survive immersion in a carbolic acid solution stronger than can be given by the vagina without denuding it of mucous membrane. Indeed, there are some who question the power of all the antiseptics in common use to kill spores, and it is a significant fact that Sir Joseph Lister, the father of our antiseptic system, after investigating and using all the known antiseptics, has declared that they are all beneath the requirements of modern surgery, and now employs what he calls the double cyanide of mercury and zinc.

If, then, it be true that any ordinary injection is not only incapable of killing all germs with which it comes in contact, but may actually itself introduce living germs, we are no longer surprised that Leopold can report that those cases of labor recover best which receive no vaginal douches, but in which the external genitalia are kept absolutely clean.

I have seen this forcibly exemplified in a patient who in a first labor was treated with 3 per cent. carbolic acid douches twice daily. The physician in charge washed his hands with soap and water, and also in sublimate solution (1 to 2000), each time before making an examination. In spite of this the patient developed a violent puerperal peritonitis and almost died. In a second labor, three years later, the same patient was treated in Germany. No douches whatever were used. Disinfecting the hands was kept up for eight minutes before each examination; the examinations were few; the external genitalia were kept scrupulously clean; in spite of a severe hemorrhage from a retained placenta and of extremely unsatisfactory surroundings, so far as antisepsis was concerned, the patient made a good and steady recovery.

In conclusion, then, we may sum up the question in the following propositions.

1. Avoid internal manipulation, if it be in any way possible, in all normal labor cases.

2. We shall be on the safer side if the external genitalia are rendered thoroughly aseptic before the labor and kept so during the puerperal period. This can be accomplished by the liberal use of hot water, sublimate soap, and sublimate solution in the strength of 1 to 1000.

3. If internal examination be absolutely necessary, or if, in spite of all precautions, sepsis has occurred, let the vaginal douches be rendered aseptic before they are given. This may be accomplished by using water that has been boiled with sublimate solution 1 to 1000, which is allowed to stand at least one-half hour before using, in order to destroy the spores in the water. The syringe, irrigator, rubber tubing, etc. should be rendered aseptic by thorough washing and soaking with the strong sublimate solution, or with alcohol.

In view of Leopold's recognized position as an authority, and the stress which he lays on this subject, we must consider that the slight extra trouble and foresight that these regulations entail will be more than counterbalanced by the great immunity from puerperal fever which we could thus acquire.

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## TYPHOID FEVER, ITS CAUSE AND TREATMENT.

By W. B. Hayes, M. D.

*Read before the California Academy of Medicine.*

I propose, in the following paper, to make a few remarks on the relation between the cause of typhoid fever and its treatment. It is only possible to go very briefly into this subject, suggesting the discussion of questions yet to be settled, rather than with a view of introducing anything that is new.

There has been a great advance in our knowledge of the causes of infectious diseases since typhoid fever was first differentiated as a distinct and separate malady, in the early part of the present century. It is now almost universally accepted that typhoid is caused by a specific pathogenic microörganism, the bacillus typhosus of Eberth.

Although it cannot be proved positively, and beyond doubt, that enteric fever is caused by this bacillus, as experimental proof is wanting, yet, as Burdon Sanderson says: "The constancy of the observed relation between the occurrence and distribution of the bacillus, and the existence and development of the disease," seems to me (and I believe all pathologists will agree with me) to leave no doubt as to its etiological significance. The bacillus has been discovered in the intestinal contents, in the fecal discharges, in the spleen, the liver, and late observers have discovered the bacilli in the blood.

It is a germ of considerable vitality, and is not easily destroyed, as it survives exposure to wide ranges of temperature. It is capable of growth after having been frozen in ice for 103 days, and after heating to 132° F. It also retains its vitality for an indefinite time in a congenial soil, the most favorable surroundings being decomposing animal matter, animal droppings, cesspools, stagnant sewage and accumulations of filth of any kind.

These facts, I believe, help to explain its obscure action at times, its breaking out anew in localities long free from the disease, and manifesting itself again under favorable conditions, owing to this power of remaining latent for long periods. While climatic conditions, a hot, dry season, the fall of the year, individual susceptibility, all favor the development of typhoid, the primary cause is the specific microörganism. This germ, as found by bacteriologists, is one-third the length of the red blood corpuscle and about three times as long as broad. The form of growth on potatoes is characteristic. After 48 hours' exposure at the temperature of the body, the surface looks moist and glistening; though there is no visible growth, examination of the film shows it to be made up of long threads of bacilli, containing spores. The formation of spores occurs in about four days, at a temperature of 86° to 108° F., and does not take place at a lower temperature.

Inoculation in animals, so far, has not been successful, although the subjects have sometimes died; but the characteristic lesions of typhoid have not been developed. This has been explained by the immunity from the disease of the animals used in the experiments. Fränkel and Simonds claim to have produced in rabbits, lesions similar to those in man by injecting into the blood, cultures of this bacillus, but I do not know whether this has been confirmed.

It grows luxuriantly in milk and is capable of multiplication in water of various temperatures; this was recognized before our present advance in bacteriology, from the careful study of epidemics, by tracing the outbreaks to their source of infection. Bacteriology has, however, demonstrated the presence of typhoid bacilli in drinking water, which was the source of some recent outbreaks. Arloing and Morat found the germ in 4 out of 6 specimens of drinking water taken from various sources of supply at a school in Cluny, during a local epidemic of enterica. A like result followed investigations by Rodet in regard to the water supply at Ville-sous-Charmoux, the scene of an outbreak of the disease in the spring of 1887.

Vaughan and Novy have demonstrated the typhoid bacillus, by means of potato-cultures, and by physiological experiment in drinking water, at Iron Mountain, Michigan, at the time of the prevalence of a severe epidemic. We have similar facts to rely on as to the part milk plays in the transmission of the disease, probably by its being diluted with contaminated water. It has been stated that cows fed on litter or garbage containing the typhoid poison can transmit the disease through the milk; it has also been traced to oysters taken near Dublin, where the sewage is discharged into the bay.

Ballard found in 1871, in a certain district of London, about 750 people in a large range of territory, attacked by the disease; he exhausted all means of causation by exclusion, and finally discovered the fact that all the sufferers were supplied from one dairy. To be brief, he found a dead, decomposed rat in the well from which the dairyman's milk was diluted, and had the sad satisfaction of knowing that the dishonest trader himself had been a victim of his dishonesty. Dr. C. F. Buckley has related to me a similar experience at St. Mary's College, in this city: the boys had a mild attack of typhoid, none succumbed; the cause was carefully investigated by the college authorities, and finally a dead rat was found in the tank, at a very high altitude, which seemed impossible of access to the ordinary rodent.

I do not believe that in these two latter cases, the typhoid germ originated *de novo* in the rats, undergoing putrefaction, but it could be explained by the rats drinking sewage water containing the germ, before being killed, and thereby contaminating the water in which they were found.

In fact, the variety of channels through which the disease can be conveyed, makes it often difficult and impossible to trace it to its source. It is probable that the only way by which the germ gains admittance to the organism is through the intestinal tract, and that those cases supposed to have been contracted through the inspired air, were due to the germ being conveyed by means of the secretions of the nasal passages and mouth to the stomach.

The bacillus finds a very favorable soil for its development in the alkaline contents of the intestines. In the earliest period of the disease the lesions are confined to the intestinal mucosa and the lymphatic tissue of the intestines, the bacilli making their way into the solitary glands and Peyer's patches and forming colonies. From there they move on to the mesenteric ganlia and through the portal system of veins to the liver, by that means infecting the whole organism. The bacillus having entered the body, grows and develops, and attacks the system through chemical poisons it elaborates.

In 1885, Bierger isolated from the pure cultures a toxic ptomaine. This substance injected into guinea pigs produced a slight flow of saliva, accelerated respiration, dilatation of the pupils, profuse diarrhea, paralaysis and death in from 28 to 48 hours. He named this substance "typho-toxine," as the special poison of enteric fever. In 1887, Vaughan and Novy obtained from pure cultures of the typhoid bacillus, derived from drinking water which had been the supply of a number of persons who had the disease, a syrupy extract, which injected under the skin of cats caused an elevation of temperature from 2° to 5° degrees above the normal. It was found that the severity of the symptoms varied according to the amount of the culture injected.

How are we to account for the symptoms of typhoid? I think it may be affirmed that the characteristic intestinal symptoms and lesions are due to the bacillus and its poisonous products. But a question not yet settled is, to what cause are we to refer the constitutional derangements of the typhoid state; the great emaciation, the profound debility, the low nervous manifestations, mental hebetude, delirium, the degeneration of the heart and muscles? Is it to the constant increased temperature? or is it to the direct and continued action of the toxines produced by the bacillus, acting on the tissues of the body?

There is a normal increase of temperature peculiar to each fever, and as Cantani suggests, it is therefore probably a beneficial reaction of the system to the causative agent of the disease. Animals have been kept for weeks with an artificially induced pyrexia, and showed no lesions or symptoms as the result.

It is a well recognized fact that different fevers attack the different parts of the body in different degrees of severity, the specific poisons apparently having a predeliction for special parts. The anemic condition left after rheumatic fever, and the great liability to endocarditis in this disease, shows that the blood and heart are the chief sufferers. In typhoid, the muscular and the nervous systems suffer more or less, leaving the great weakness and debility after the disease. We see in malignant fevers early and almost sudden deaths from the profound effect of the poison on the system.

Then there is the early delirium occurring in some fevers, before there is any great rise in the temperature. The liability to sudden death in diphtheria, when everything seems to point to the patients doing well, and when there may be only slight elevation of temperature, is familiar to all of us. This is due, no doubt, to the action of the specific poison, this disease being often followed by paralysis, which can hardly depend on the fever. Scarlet fever, with its great liability to nephritis, is another example. These facts are suggestive of some cause in producing the effects of typhoid fever other than the elevation of temperature, and I believe that the constant action of the specific poison of the disease is responsible, and that the increased temperature plays a secondary part.

Before referring to treatment, I should like to demonstrate Ehrlich's test, as any assistance in recognizing or differentiating typhoid, from other diseases, is valuable as an addition to our means of diagnosis. The diagnosis of typhoid fever, even in its typical and classical form, is often very difficult in the early stages of the disease; and I may fairly say that typhoid as seen here is atypical in the majority of cases. The characteristic roseolar rash, the typical diarrhea, and the well-marked abdominal symptoms, are very often conspicuous by their absence. It frequently assumes a peculiar lingering and undefined character, with the most prominent symptoms referring to the lungs or brain, making it a disease that is at times very difficult to recognize. I believe it often runs its course without being identified, and the illness is usually put down to some other cause; many cases of mild continued fevers, which have no well defined or characteristic symptoms, are probably mild enteric.

Typhoid is one of the best examples of the law that a given disease varies according to diverse circumstances—modified by climate or localities, or by idiosyncrasy, and assuming different forms in different epidemics. Whether it is the country and climate that alters the nature of the specific microörganism, or whether the individual is changed by the conditions of the climate under which he lives, and modifies the disease, it is difficult to say; but it is reasonable to suppose that these disease-producing germs are subject to the same laws as plants and animals, which vary in strength, size, and general characteristics in different climates. However, the disease seen here is not the disease as seen in its typical state in Europe, or from what I read of it, as seen in the East.

The early diagnosis is essential whatever method of treatment we adopt, and any aid to that end is worthy of trial. One of the best early means of diagnosis I have seen is the urine test. There are two solutions used in this reaction, known as Ehrlich's test: (1) A saturated solution of sulphanilic acid in 1 in 20 HCl. (2) A ½ per cent. solution of sodium nitrite in distilled water. The action of the HCl. of nitrite of sodium from nitrous acid, which, in the presence of sulphanilic acid, forms diazabenzine-sulphonic acid, constitutes the test. The solutions are not permanent, and have to be renewed at short intervals; they are not very reliable after ten days, owing to the instability of the sodic nitrate, and they should be freshly prepared at each testing. In making the test 25 parts of the first solution are mixed with one part of the second solution, and this mixture added to an equal bulk of the urine to be examined, then add ammonia to alkalinize.

In normal urine the usual change is a deepening of its color to sherry or vinegar brown, and the phosphatic deposit is grayish in color. When it is applied to the urine of a patient with enteric fever the color turns red, and it varies from yellowish-red to ruby-red or port wine. The phosphatic deposit, after resting for 12 hours, is green, violet, or greenish-black; the froth produced on shaking the test-tube is a pink color, which is characteristic. If typhoid fever was the only disease in which this reaction occurred, it would be an invaluable and the only invariable test, but unfortunately it is also occasionally seen in other diseases. It cannot be demonstrated until about the end of the first week, but then cases rarely come under observation before that time.

Dr. Howard Taylor gave it a trial in the London Hospital and found the reaction invariably present in enteric fever. He also found that it occurred in a few cases of Bright's disease, and that it was common in measles, but in acute tuberculosis, which very often simulates typhoid, it was always absent. Dr. Vaughan, of St. Luke's Hospital, used the test in about 375 different patients, and found it present in all the typhoid cases he examined, and in a number of advanced cases of phthisis, in 3 out of 9 cases of lobar pneumonia, and in a few other instances. Ehrlich, in a large number of examinations (over 7,000), found it almost invariably present in typhoid and very common in measles, occasionally in scarlet fever, diphtheria and pneumonia, but always absent in meningitis, rheumatism and erysipelas. I have found it useful on a few occasions. I obtained the characteristic reaction in the only four cases of typhoid I examined. I tested and did not find it in two cases of subacute meningitis, one of acute mania, and two of pneumonia.

The treatment of disease is ever changing, and the specific of to-day is relegated to the forgotten past by to-morrow, with its non-successful forerunners. The great tendency seems to be to take up new remedies and treatments indiscriminately, and without sufficient regard for individualism. I do not think it is sufficiently understood that it is as necessary to study the individual as the disease—the using of one method of treatment in a disease, which has for its end the control of a symptom, is wrong in principle, as is demonstrated by the unvarying use of the cold bath in typhoid, that is so much in vogue at the present time. Any treatment that is of a disturbing nature, I believe, should be avoided—and in the light of present knowledge, our efforts must be to steer the patient safely through the attack, by relieving untoward symptoms, preventing complications, shortening the course of the disease if possible, guarding against relapses, and recognizing the "tendencies to death" and combatting them.

In dealing with typhoid, I will refer only to what I consider the three most important points: (1) The diet. (2) Control of excessive fever. (3) Intestinal antisepsis.

Typhoid is a wasting disease, and therefore diet is an essential element in the treatment. In dieting fever patients, we must bear in mind the altered condition of the digestive secretions, which are diminished, both in quality and quantity—and in enteric fever, the additional bowel lesions.

The constituents of the gastric juice are diminished in the following order, according to observations by Botkin: (1) HCl. (2) The rennet curdling ferment (lab.). (3) The pepsin. For these reasons the nutriment should be given in liquid form, concentrated, highly nourishing, easily digested, in small quantities, and given at regular and short intervals.

Of the different foods, milk ought to be given as a constant diet, but limited to about two pints a day, otherwise the casein, not being easily digested, will form curds which are liable to irritate the stomach and ulcers in the bowels; if diluted with plain water or lime water, or by boiling, it will diminish this tendency. But milk is not, by any means, a complete food, being deficient in carbo-hydrates, and it is necessary to vary the nourishment in form and consistency, otherwise patients are liable to turn against it, and then it is often difficult to get them to take anything. Fresh beef juice is another palatable and easily digested nutriment. If properly prepared, it may be added to soups and meat extracts. Beef tea, made by boiling the beef in milk instead of water, gives a concentrated food that is pleasant to taste and makes a good change. Carbo-hydrates are necessary in some form, owing to the increased combustion of the tissues, and rice well boiled may be added to the milk, which will greatly increase its nutritive qualities, or oat meal and barley gruels may be given according to the needs of the patient.

It is often necessary to promote assimilation by the addition of some of the peptonising agents. In fact, the principle to be laid down in the dietary of typhoid, is to give as liberal a supply of nourishment as the patient can easily digest, and each one varies in the maximum amount.

The constant fever, the rapid combustion of tissues, with the consequent dehydration of the organism, requires that it should be supplied with a reasonable quantity of water, to the extent of not interfering with the digestion. Water acts as a good diuretic, flushing the kidneys; it keeps their functions active, and helps to cause the elimination of the products of combustion of the tissues. It is a safe precaution not to leave milk, soups, or any food the patient may be taking, in the sick-room for any time, as they are liable to become infected.

The subject of the administration of alcohol is an important one. It is a powerful aid in controlling febrile affections. From experiments made by Diakonoff, it diminishes the assimilation of the nitrogenous matter of the food in habituated as well as non-habituated persons. It impairs the appetite and increases the quantity of feces. It retards disintegration of proteids in the system, and in cases in which the assimilation of proteids falls but slightly, it diminishes the metamorphosis of nitrogenous substances. Alcohol augments the daily excretion of urine, but lessens the cutaneous and pulmonary transpiration. It improves the subjective condition, diminishing systemic disintegration of proteids, and as a good diuretic, promotes the elimination of the suboxidised products, and prevents their accumulation in the system. It, therefore, may be concluded that any unpleasant influence alcohol may have on the digestion is compensated by its various beneficial effects.

Alcohol is necessary in the majority of typhoid cases, but the only guide as to quantity and when to administer it, is the study of each individual case; some require it early, others later in the disease; a careful watching of the patient is necessary. General weakness and prostration, feeble action of the heart, nervous manifestations, such as delirium, subsultus tendinum, all call for the administration of stimulants. The quantity used should be as little as is necessary to fulfil the desired end, and the kind of stimulant must be decided in each particular case.

We have two methods of controlling the fever and keeping it within moderate bounds, when it tends to become excessive: (1) By diminishing its production. (2) By the withdrawal of heat by increased radiation. To diminish heat production various remedies are used—quinine, antipyrin, antifebrin, phenacetin. Thallin and quite a number of others have been used, and with a varying degree of success, but they cannot be given constantly with any safety, owing to their depressing action on the heart, and then they have no special action on the cause of the fever.

The consensus of opinion rests with the different methods of increasing the radiation of heat from the body, such as the cold pack, cold baths, cold douches, administration of cold water; these methods abstract a large amount of heat from the body, and rather augment its formation at first.

It is questionable if the routine treatment by immersion in cold baths, carried out according to Brand's system, is as beneficial as it is claimed to be. The treatment of a disease which varies so much in different countries and climates, in different individuals, and with each epidemic, which does not reach the source of the affection, does not promise to remain in favor for a very long time. It is admitted it does not shorten the attack nor prevent relapses, and the method has not been as successful in this country as in Germany, notwithstanding the close attention to detail. The immersion of a patient with a temperature of 102° or 104° F., in a bath at 65° F., is liable to act as a severe shock to some patients, and with the known tendency in typhoid to degeneration of the heart, it should be used with a good deal of discrimination. If it be necessary to use the cold bath, the gradual cooling from 80° F. down to the required temperature seems to be the safest; by that means shock is minimized. In the majority of cases, sponging the skin with alcohol and water suits admirably; by keeping the surface clean it causes a sufficiently increased radiation to maintain the temperature within moderate bounds, and by assisting this method with a rectal injection of 15 grs. of quinine and upwards, I believe it will answer in a large percentage of cases.

As a routine treatment intestinal antisepsis seems to me to be the most rational, according to our present knowledge, as it aims at the source of the disease, by neutralizing the toxines, and diminishing their production, as manifested by the urine, from observations by Teisser. It relieves intestinal symptoms, preventing abnormal fermentation and the resulting meteorism, arrests the diarrhea, and controls the fever indirectly; in a great many cases it shortens the pyrexial stage. It also tends to prevent relapses by reinfection of any fresh glands or Peyer's patches from the intestinal contents; the stools are disinfected, so that the disease will proceed quietly, and there will be less liability to complications from purulent infections.

Of the different drugs used in producing intestinal antisepsis—naphthol, beta or alpha, naphthalin, iodoform, phenol, salol—I think naphthol, alpha, and salol, are least liable to cause any gastric irritation; they can be combined with salicylate of bismuth or the subnitrate, and given in 2 or 3-gr. doses every two or three hours, which is sufficient to induce an aseptic condition in 24 hours, and this can be kept up during the disease. It is usual to clear out the bowels with a calomel purge before beginning this treatment.

I have given no statistics, as they are very deceptive in infectious diseases. We can get figures to prove anything, and particularly so in such a varying disease as typhoid fever.

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# DEPARTMENTS.

## OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal., and

HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

**Conservative Treatment of Salpingitis.**—The old belief of the great preponderance of cellulitis over peritonitis, in pelvic disease, having been extensively questioned, denied and disproved, writers and operators are running to the opposite extreme and denying altogether—except occasionally in the puerperal state—the occurrence of cellulitis. DR. JOSEPH PRICE is an extremist in this direction, and in a recent article inveighs pointedly against opium, flaxseed maceration, iodine decoration and electric placebo; holding that about all pelvic inflammatory disease is peritonitis, induced by purulent accumulations in the Fallopian tubes, and that the only remedy is abdominal section and removal of the tubes. He has operated many hundreds of times, and, as with many others, has been constantly looking for cellulitis, and not finding it. In a paper with the title of this paragraph, DR. PAUL F. MUNDÉ takes a more conservative view, and holds that, while in their chronic stages nearly all pelvic cases require laparotomy, many in the acute stages, if properly treated, may be cured without resort to abdominal incision. He holds that many uterine appendages have been removed which, with a little patience and perseverance on the part of the physician and patient, could have been saved. This is especially the case in catarrhal salpingitis, with pain in one or both ovarian regions, which does not yield at once to local applications of iodine, etc., and in which the appearance, perhaps at irregular intervals, of a muco-purulent discharge from the vagina, denotes the possible presence of a pyosalpinx. Persevering treatment will, in a large majority of such cases, relieve and eventually cure. A positive diagnosis is not always possible, but is based on more or less constant ovarian pain, with occasional exacerbations and inflammation, and deterioration of health. Physical examination reveals the uterus more or less immovable, chiefly from side to side, the vaginal vault somewhat rigid, tense; and, bimanually, the appendages are felt to be swollen, often very tender, and attached to the bottom of Douglas' pouch. Frequently no distinct disease of the appendages can be felt by the finger, or one feels an oblong, immovable swelling of the size of the little or index finger, through the vaginal vault or behind the cervix; or the swelling may be much larger, and present undoubted signs of fluctuation. Again, the swelling may be distinctly or indistinctly circular. In the former case it is probable the tube contains either pus, serum or blood; in the latter, the ovary. The writer says: "Now what I wish to emphasize, is the fact that a mere slight, more or less acute or sub-acute inflammatory enlargement of the Fallopian tube, even though it be entirely detectable by the finger *per vaginam*, does not warrant the removal of the diseased organ until all palliative means at our disposal have been tried and tried again without avail. The mere presence of catarrhal salpingitis, with or without adhesions, with or without agglutination of the tube, with or without closure of its fimbriated extremity; the mere presence of a certain amount of pain in these regions, does not by itself warrant us in removing the diseased organs." Pus in the Fallopian tube *always* warrants operation for its removal. If accessible *per vaginam*, then after aspiration to prove the diagnosis, it may be opened, drained, washed out and a drainage tube inserted; otherwise a laparotomy becomes necessary. Acute salpingitis is treated by rest in bed, hot vaginal douches, hot poultices, opium to allay pain, antipyretics to control fever. When subacute, mild applications of tincture of iodine and glycerine, equal parts, may be made to the vaginal vault, accompanied by glycerine tampons. Daily sitz baths of a temperature of 105° F. for half an hour may be given. Blisters may be placed on the abdomen, on the affected side. This treatment for from three to six weeks usually effects recovery; it may take longer. A tube as large as a banana will sometimes gradually diminish, shrivel and entirely disappear. These views are justified by reference to a large experience and many cases. In conclusion, Dr. Mundé refers to many preservative methods, when laparotomy becomes imperative, such as detaching adherent tubes without removal, when found healthy; detaching, pressing out the mucus contents and attaching the uterus to the abdominal wall, to prevent readhesion; removing the fimbriated extremity of the tube to restore its lumen; excising small cysts of the ovary and cauterizing, or uniting the walls of incision in the ovary with catgut sutures.—*American Journal of Obstetrics*, June and July, 1892.

**Diphtheria and its Treatment.**—The coccus insect, a miniature creature, feeds particularly on one plant, the nopal; the potato-bug on the potato-vine; the rose-beetle on the rose-vine, etc. These parasites suddenly and mysteriously appear and disappear; are very destructive to the plant; only starvation will make them infest other plants; and, owing to great powers of multiplication, the means must be prompt and efficient to kill them. So it is with the diphtheritic bacterium. It has an especial affinity for the tonsils. Its presence on these organs is the local manifestation that chiefly characterizes diphtheria. If not early and thoroughly destroyed, it will multiply and extend its ravages with wonderful rapidity and injury. The subjoined treatment is based upon this theory, and has been successful in 37 consecutive cases, this number being all of the cases in which I used it. It consists in the application to the patches of a strong solution of argentic nitrate, ℈j to ℥ss of rose-water, by means of a throat-brush, so constructed that it will not break, etc. I wish to emphasize that this application must be repeated at one sitting sufficiently to remove the patches, or to saturate them. Failure in this respect may cost the life of the patient. In the early stages of the disease the patches can almost invariably be wiped off with one sweep of the brush, which is not the case later on, when they become deeply adherent. These applications should be made twice a day, morning and night, but may be used according to the exigencies of the case, or so long as the deposits are observed, since they show a tendency to reappear. Often after one effectual cleansing of the throat in this way the patches do not return, and there is a subsidence of all of the symptoms of the disease. The agent must be kept in a blue bottle, excluded from the light, and the brush, or whatever instrument is used in making the application, should be washed and kept in an antiseptic solution. If practicable, the foregoing procedure should be immediately followed by a gargle, such, *e. g.*, as the following:

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| ℞.—Tinct. Kino | ℥ ij |
| Glycerin. | ℥ ij |
| Ol. Eucalyptol | gtt. x—M. |

S.—A teaspoonful in a tablespoonful of water as a gargle.

The operator may wear gloves to prevent discoloration of the hands by the silver, and the face should also be guarded from the stain. Whether or not the gargle be used, the throat should be dusted with the following:

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| ℞.—Hydrarg. Chlor. Corros. | gr. j |
| Pulv. Sulphuris | ʒj—M. |

S.—Blow a pinch into the throat every four hours.

For this purpose, I use an insufflator, with a tongue-depressor attachment. A pinch of the powder component of the treatment is pressed into the tube. Thus charged, it is used as an ordinary tongue-depressor, when, upon the desired exposure of the part to be treated, compression of the rubber ball expels the powder in an effective and reliable manner. It may be necessary to discontinue the use of this mercurial combination in a day or two. Its administration must be under the supervision of the physician, on account of the possible systemic toxic action, although I have not experienced any such unpleasant occurrence. In connection with this treatment I give from the commencement, according to the age of the patient:

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| ℞.—Pulv. Potas. Chlorat. | ʒ ij |
| Tinct. Ferri Chlor. | ʒ ij |
| Syr. Limonis | ℥ iij |
| Ol. Gaultheriæ | gtt. iij—M. |

S.—A teaspoonful every two or three hours.

I also apply externally, over the site of the tonsil:

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|---|---|
| ℞.—Tinct. Iodi. | ʒ ij |
| Ol. Camphorat. | ℥ j—M. |

S.—Apply every four hours.

This is best done by wetting a piece of flannel with the remedy and holding it in place by means of a roller bandage. I have always found this procedure to reduce the external swelling. Care must be exercised so as not to soil the clothing. When there is a rise of temperature, indicating the need of antipyretics, I resort to small doses of antipyrin, and withhold its use upon a sufficient diminution of temperature. During convalescence I advise the use of mist. ferri et ammon. acetatis, light nutritious diet, and champagne. Sometimes the stomach is so irritable that it rejects everything given. This condition is generally alleviated by giving the wine. In only a few cases were there noteworthy sequelæ, from which the patients ultimately recovered. Perhaps in my cases the reality of the disease may be doubted, but the adoption of the treatment will convince the most skeptical. Furthermore, albumin was always present in the urine. Sometimes angina coëxisted. The mortality and gravity being large, it seems that the treatment of diphtheria may be susceptible of much improvement. Anything that has been proved useful in so large a number of cases as I report is certainly worth a trial.—ALEXANDER FULTON, M.D., in *Medical News*, April 23, 1892.

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## SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.,

J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and

G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Polyclinic, San Francisco, Cal.

**Traumatic Epilepsy, Treated by Trephining; Recovery.**—DR. FRANCIS T. HEUSTON reports the case of a soldier who, six years previous to coming under his care, was thrown from a horse, violently upon his head. He remained unconscious for a fortnight. At the expiration of four months his principal ailment was a hesitancy in his speech. Five months later he was attacked with epileptiform convulsions, which recurred at irregular intervals. A triangular scar of the scalp existed in the left occipital region, slightly above which was to be felt a well-marked circular depression of the skull, about an inch in diameter. This corresponded in position to the second annectant convolution of the brain. A V-shaped incision, with its base above, was made through the scalp at the seat of the injury; the subaponeurotic cellular tissue was found intimately attached to the depressed piece of bone; it was removed, a ¾-inch trephine applied at the seat of depression, and the bone, which was found to be of abnormal thickness and density, there being no diploë, removed. The dura mater bulged into the trephine hole, and was evidently thickened there, but there was no visible pulsation of the brain. An aspirator needle was passed through the dura mater and some serous fluid removed. A large quantity continued to flow after the needle was withdrawn, and the brain pulsation became distinct and natural. The removed portion of bone, which had been preserved in a warm antiseptic solution, was broken into small pieces and placed in the trephine hole. A drainage tube inserted, the end corresponding to the opening in the dura mater, the wound in the scalp was sutured and dressed with zinc sulphite gauze. Three days from operation, the wound being healed, the stitches were removed and the drainage tube washed out; at the end of a week the tube was removed. At the end of ten months there is no pulsation or depression at seat of operation, the bone replaced in the trephine hole having evidently firmly united. There have been no epileptic seizure since the operation.—*British Medical Journal*, June 11, 1892.

**Foreign Body in the Trachea; Tracheotomy.**—MR. P. B. BENTLIF reports the case of a boy, aged 10 years, who, during a sudden fit of coughing, swallowed a prune stone. Examination of the throat with a small probang, brought on a fit of coughing of a croupy character, accompanied by frothy expectoration, tinged with blood. He could feel something go up and down his throat when he coughed. During the interval he did not feel anything. A laryngoscopic examination was made with a negative result. On auscultation a croupy sound was heard, more marked during expiration. Palpation caused pain on the left side of the larynx, just opposite the cricoid cartilage. Occasional ronchi were heard in the chest. After making all necessary preparations for a tracheotomy, the patient was suddenly inverted and struck smartly on the back with no result, except causing a good deal of dyspnea. Chloroform was administered, and the crico-thyroid membrane, cricoid cartilage, and the first two rings of the trachea divided. Nothing could be seen, but the patient, having a sudden fit of coughing, the stone could be distinctly seen passing up and down. Another ring was divided and a probe passed into the trachea, which set up a paroxysm of coughing, resulting in the expulsion of the stone through the wound. A tube was inserted, and taken out in 24 hours, and the patient made an uninterrupted recovery.—*British Medical Journal*, June 25, 1892.

**Excision of the Knee Joint.**—DR. CHAS. F. ROOSE says in 28 cases of operation, the condition of the joint was as follows: In 4 there was disease of the synovial membrane, with superficial caries of the bones; in 3 there was general panarthritis; in 2 cases caseous deposits were found in the bones; in 11 cases there was found abscess in articular ends of bones; in 3 cases bony ankylosis; in 11 cases the tibia was dislocated backward, and in 4 tubercular synovitis was present. In 2 cases the joint was excised in order to obtain bony ankylosis, in paralysis of the limb. The operation was performed in 8 cases for deformity; in 4 for deformity and disease; in 14 for disease, and in 2 cases to obtain bony ankylosis. Of these, 22 were discharged cured, 1 was discharged with some bony union, 4 died, and 2 cases came to an amputation. One case of death from tubercular tumor of the brain, one from general tuberculosis, one from heart failure, and one from spinal disease, joint sound. The two cases of amputation were for persistent and extensive disease of the ends of the bone. Of those discharged cured, 1 was well 13 years, 2 were well 7 years, 2, 5 years, 3, 1 year, and 2, 18 months after discharge. One died from scarlet fever shortly after discharge; wound closed and union firm. One discharged cured as to limb, but with spinal disease, died five years later from general tuberculosis. Shortening occurred in all cases, and varied from ¾ of an inch to 4 inches. In cases of epiphysitis, the end of the bone should be trephined early, the diseased point opened and curetted. If diseased bone is not at first found, no injury to the part can possibly result, as the operation is of no greater danger than an exploratory incision in the soft parts, and an abscess may at a future date find an easier way out by the trephine opening than into the joint. In the management of a cavity left after removal of pus from the end of a bone, three methods for obliteration have been adopted: Filling in by means of a blood-clot, the implantation of decalcified bone, and Neuber's method of implantation of a skin flap. Cases of tubercular disease of the synovial membrane, in which the swelling comes on insidiously, without much pain or tenderness on pressure, and where the skin is white and infiltrated, are cases for early amputation rather than excision.—*New York Medical Journal*, July 16, 1892.

## OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

**Nystagmus in Aural Affections.**—DR. MICHAEL COHN reports a case of the above-named rare occurrence (*Berliner klin. Wochenschrift*). In Baginsky's public clinic for ear, throat, and nasal diseases, in Berlin, a woman, 46 years old, presented herself for relief of a discharge from the left ear, associated with attacks of vertigo and nystagmus. Gentle pressure on the tragus of the affected ear, syringing the ear, and compression of the air in the external auditory canal with an inflation balloon instantly produced vertigo and nystagmus. When the canal was lightly filled with cotton no form of pressure on the column of air in the auditory canal was able to call forth the aforesaid phenomena. *American Journal of Medical Sciences*, July, 1892.

**A New Boric Acid Preparation in the Treatment of Chronic Purulent Otitis Media.**—DR. MAX JANICKE, of Görlitz, recommends the use of a neutral borate or tetra-borate of soda, in the treatment of chronic purulent otitis media. This preparation is obtained by heating equal parts of boric acid, borax, and water. Upon cooling, the precipitate will be found to be neutral in reaction. It is soluble to the extent of 16 per cent. in water at the ordinary temperature of the room, while in boiling water it is soluble to an almost unlimited extent. This salt possesses the valuable peculiarity that, unlike other salts, it does not precipitate from its hot concentrated solution immediately upon cooling. Precipitation does not occur for some time after cooling, so that solutions of 50 per cent. may be used in the drum-cavity. Thus, a large quantity of an antiseptic material can be introduced into and kept in the drum-cavity for a long time. Once in 24 hours is often enough to apply the solution in cases of moderate discharge, while in slight discharges less frequently will answer. The neutral borate of sodium is extremely mild and unirritating. After the use of the above named solution in cases of a large perforation of the membrana tympani, some of the same neutral salt may be blown into the ear.—*Archiv. f. Ohrenheilkunde.—American Journal of Medical Sciences*, July, 1892.

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## DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

**Lupus by Inoculation.**—J. JADASOHU (*Virch. Archiv.*) reports the following case: In consequence of an injury an ulcer developed on the finger tip of a butcher. The ulcer resembled, though not exactly, one of tuberculous origin; shallow floor, thin, partly undermined, irregular border, feeble granulations, numerous points of suppuration. Later a typical lupus patch developed on the forearm and another on the upper arm. The histological examination disclosed the tubercular nature of the lesions, though but few tubercle bacilli were found. In a second case, the lupus developed on the site of a tattoo, and coincided exactly with the lines of the tattoed design. The operator, it appeared, was phthisical and had used his saliva in mixing the colors.—*Journal Cutaneous and Genito-Urinary Diseases*, April, 1892.

**Gonorrheal Cerebro-Spinal Meningitis.**—DR. STIÉNOU (*Jour. de Méd. de Bruxelles*) relates a case of cerebro-spinal meningitis in a young man, which, according to the author's views, was due to the location in the cerebro-spinal meninges of gonococci from a urethritis which was found present, just as the germs of epidemic cerebro-spinal meningitis, typhoid fever, erysipelas, acute rheumatism, etc., are capable of vegetating in this region and developing their effects. The occasional production of arthritis peri- and endo-carditis, periostitis, and neuritis, from the presence of this microörganism plead in favor of the author's hypothesis and permit the conclusion that while meningeal manifestations from gonorrheal infection are very rare, they are by no means impossible.—*Medical Record*, May 14, 1892.

**On the Use of Alkalies in Pruritus.**—In 4 cases of pruritus, rebellious to all treatment, LANGE has observed that the urines were characterized by uric acid and the urates, and prescribed the use of alkalies such as bicarb. of soda, carbonate of lithium and alkaline waters. The results obtained were excellent; the morbid symptoms were bettered from the day of the institution of this treatment, and continuing for some months there was complete cure in all the cases.—*Nouveaux Remèdes*, June 8, 1892.

**Primary Carcinoma of the Urethra.**—This is a rare condition and one only recognized as a rule after removal and examination by the microscope. DR. WILZENHAUSEN reports in the *Centralblatt f. Chirurgie*, two cases observed in the clinic at Heidelberg.—*Medical Record*, May 14, 1892.

**Hystero-Syphilis.**—DR. FOURNIER (*Annals de Psych. et d'Hypnologie*) reports the case of a young man, who three months after infection began to show nervous and hysterical symptoms and finally fell and lost the power of speech for five days. Motor and sensory hemiplegia was present on the left side. Antisyphilitic treatment was followed by marked amelioration, but the patient left the hospital and the hysteria soon showed itself again, with a laugh coming on whenever a bright object was seen, and attended with a most disagreeable feeling of constriction in the chest and throat. Almost every day, at a fixed hour, the patient would become intellectually unaccountable for his acts, and would not know what he did for a period. Before contracting syphilis, no tendency to hysteria could be discovered, but as we know that women often show nervous symptoms and become neurasthenic after becoming syphilitic, there is no valid reason why a man may not do the same.—*Journal Cutaneous and Genito-Urinary Diseases*, July, 1892.

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## MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

**Phenacetin in Acute Articular Rheumatism.**—DR. FR. SZTAMPKE, of Warsaw, draws attention (*Nowiny Lekarskie*) to phenacetin as an excellent remedy for acute rheumatism. When administered internally in 1-gramme doses from 3 to 5 times a day, the drug is said to give better results than salicylate of soda, antipyrin, antifebrin or quinine, the articular pain and swelling subsiding and ultimately disappearing very quickly, and the disease running a favorable course to end in a complete recovery. Another advantage of the remedy is thought to consist in its innocuousness, no disagreeable accessory effects whatever being observed, even when phenacetin is given in large doses for a prolonged period.—*St. Louis Medical and Surgical Journal*, July, 1892.

**Gelsemium in the Treatment of "Colds."**—DR. JOHN AULDE says: Gelsemium arrests profuse nasal secretions, quiets headache and neuralgia, subdues cough and pain, favors a reëstablishment of the secretions through its influence upon the skin, kidneys and gastro-intestinal tract. It reduces temperature and pulse rate, promotes sleep, and creates a feeling of comfort and well-being without in any way approaching narcosis or destroying the oxygen-carrying capacity of the blood-corpuscles. By the use of this single remedy, much discomfort to the patient is avoided, digestion remains undisturbed, nauseating draughts are banished, the necessity for purgatives precluded, and all dangers of subsequent relapse practically eliminated, while recovery is prompt, perfect and satisfactory in every particular. Ten drops of a reliable fluid extract (assayed) are dissolved in 3 ounces of water, and of this mixture the patient takes a teaspoonful every 10 or 15 minutes for an hour, then at less frequent intervals, according to the effects produced. The plan is simple, the medicine harmless in the dosage recommended, and not at all unpalatable.—*Medical Record.*

**Visceral Phlebotomy.**—DR. GEORGE HARLEY has been treating cases of hepatic disease by means of bold punctures. In the first case the liver was punctured to a depth of eight inches, in a patient dying from the combined effects of a greatly enlarged, hard and inflamed liver, ascites, and marked anasarca. Recovery followed, with no return of the disease. In the second case the liver, enlarged and inflamed, and the seat of strumous abscesses, was likewise treated. Copious hemorrhage took place through the bile duct into the intestine. The liver became smaller, and convalescence ensued. Pulmonary phlebotomy is the most difficult form of visceral phlebotomy, the constant movement of the lungs making it far from an easy matter to close the wound; but it has been done, so we are informed, with great benefit to the patient. Dr. Harley holds that visceral phlebotomy should be practised on every accessibly situated internal organ in preference to leeching and cupping.—*Medical Press and Circular,* July 6, 1892.

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## MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco. Cal.

**The Healing of Tuberculosis.**—DR. WILLIAM OSLER refers to recent studies which have shown, that in a considerable proportion of the bodies of persons dying of all diseases, quiescent or healed tubercular lesions are found in the lungs; which justify the German axiom "that in the long run everybody has a little tuberculosis." The following conditions at the apices seem to signify healed tubercular processes: (1) Thickening of the pleura, with subjacent induration of the lung tissue. (2) A puckered cicatrix at the apex, depressing the pleura, which here may or may not be thickened. (3) Puckered cicatrices, with a cheesy or cretaceous central nodule, and with scattered tubercles in the vicinity. (4) Quiescent cavities surrounded by fibroid tissue and communicating with bronchi. Osler reviewed the records of 1,000 *post-mortem* examinations in reference to this question. In 216 cases death was caused by pulmonary tuberculosis. Among the remaining 784 cases, 59, or $5\frac{5}{100}$ per cent., were persons dying of other diseases, who presented undoubted tubercular lesions in the lungs. In 27 per cent., in 400 bodies, Bollinger found evidence of the healing of tubercular lesions in the lungs. He had heard the statement in Paris that, of the bodies examined in the morgue, the majority of which are of suicides, or persons accidentally killed, nearly 75 per cent. present evidences of old tubercular lesions. We may say that in ¼ of all persons infected the disease is never manifest, but remains local, and the lesions gradually heal. In another ¼ of those attacked, local signs developed, but the physiological resistance of the tissues is sufficient to arrest the process. The remaining 50 per cent. of those infected fight for months and years, losing battles until the final defeat comes. Once infection has occurred, the chief indication is to place the person in surroundings favorable to the maintenance of the maximum degree of nutrition. The influence of environment has never been better illustrated than by Trudeau's experiment. Inoculated rabbits confined in a dark, damp place, rapidly succumbed, whilst others, allowed to roam at large, either recovered or had slight lesions. The very essence of the climatic treatment of tuberculosis is improved nutrition by change of environment. Fresh air and sunshine are the essentials, with which in comparison altitude is of secondary importance.—*Climatologist*, April, 1892.

**The Etiological Therapy of Tetanus.**—In 1890, BEHRING and KITASATO showed that the blood of rabbits rendered immune to tetanus possessed the property of destroying the toxic substances produced by the tetanus bacilli. They also showed that the transfusion of serum or blood from the immune animals to mice, not only protected the latter from tetanus, but was capable of curing the animals, even after one or more extremities had become tetanic. This, as well as other investigations on the anti-toxic action of blood from immunized animals, led to no favorable practical results until GUIDO TIZZONI and CATTANI applied these investigations to actual practice and so made it possible for the first time, to introduce with favorable results a direct etiological therapy of an infectious disease. Tizzoni and Cattani succeeded in rendering dogs and pigeons immune to tetanus, by subcutaneous injections of tetanus virus in gradually increased doses. The blood serum of such animals will at once destroy the toxicity of the tetanus bacilli. A subcutaneous injection of a small quantity of blood serum from an immune dog will confer immunity to another dog, even though a certain fatal quantity of tetanus bacilli is injected. The *antitoxin* present in the blood of protected animals is an albuminoid substance obtained by precipitation of the blood serum with alcohol. The positive value of "Tetanus Antitoxin" is shown in an appended report of four cases of tetanus. In one case of DR. GAGLIARDI, antitoxin obtained from the blood serum of an immune animal was furnished by Dr. Tezzoni, one grain of which sufficed to cure the patient.—*Wiener med. Presse,* March 6, 1892.

**Asthma and its Treatment.**—DR. B. O. KINNEAR suggests a new treatment for asthma and its complications by the use of cold over the spine. He contends that this disease is of nervous origin, affecting the circular bronchial muscles. The pneumogastric nerves and their congestive centres are mainly responsible for the asthmatic paroxysms. By excluding the blood from these centres, their function is rendered normal; consequently the muscles about the bronchi expand, and the swelling of the mucous membrane subsides. This result is attained by ice applied over the spine in such a way that, the circulation being naturally distributed over the body, the congestion of the centres is at once lessened in the acute attack. He maintains that ice over the spine dilates the arteries throughout the body, distributing the blood to organs and tissues where there has been an insufficient supply. The ice is applied in bags extending from the 4th cervical to the 3d lumbar vertebra daily, in time varying from three-quarters of an hour to four hours. Six cases are reported. *Case I*, is that of a woman, 60 years of age, who was a sufferer from asthma for 16 years. Ice was applied in a full length bag, and used four hours a day, an hour at a time. The patient was practically well in six weeks. *Case II*, that of a boy with hereditary asthma. Application of ice bag at once relieved the paroxysm. The results in the other cases show, that the asthmatic attacks may be subdued or controlled by the application of ice to the spine, and that if the patient is not too old or the disease of too long duration, cures may result.—*New York Medical Journal*, April 23, 1892.

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## MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. Hoisholt, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

**Diagnosis and Treatment of Epilepsy.**—In a paper on this subject Dr. James Stewart calls attention to the difficulty of the differential diagnosis of epilepsy from hysteria, and to the frequent association of epilepsy with migraine. He warns against the indiscriminate use of the bromides, but has had but little experience with other drugs. The removal of the epileptic from the often harmful home-surroundings he considers of great importance. In the matter of diet, the author thinks that a good nitrogenous diet is not only desirable but necessary to many adolescent epileptics, while in the case of senile epileptics a reduction to a carbohydrate diet is most beneficial.—*Lancet.*

**Sensory Aphasia with Autopsy.**—A case answering to what Wernicke calls simple sensory aphasia has been reported by Dr. M. J. Déjeriné. He calls attention to the fact that marked difficulty in spoken language may be present without affection of Broca's convolution, showing the necessity of establishing a distinction between real motor aphasia and paraphasia. In the case presented there was complete word-deafness, pronounced paraphasia—alexia and absolute agraphia, both as regards spontaneous writing and writing from dictation. In copying, the patient would draw each letter separately, one after the other, in a very imperfect manner, the letters conveying no meaning to his mind. Right-sided hemianopsia was present, but there was no optic aphasia nor psychic blindness. The sense of hearing was intact, also motility and sensibility, and the power of imitation was well developed. The autopsy revealed a yellow patch on the outer surface of the left hemisphere, which extended forward as far as the lower two-thirds of the ascending parietal convolution, thus confirming the diagnosis, made during life, of word-deafness and word-blindness, or sensory aphasia. The function of speech cannot be perfect unless integrity of the auditory centre be present. It was on account of this fact not being recognized that it was formerly thought motor aphasia could exist without lesion in Broca's convolution.—*Journal des Société's Scientifiques—Journal of Nervous and Mental Disease.*

**The Simulation of Hemophilia.**—Prof. Unverricht exhibited to the medical faculty of Dorpat, at a recent meeting, a patient who for several months past had suffered from severe bleeding from the ears, nose, and eyes. When the blood was first discharged from the right ear, the sense of hearing had also become dull on the same side, and the whole right side of the body was paralyzed, hemianesthesia and hemianopsia being present. While under treatment she frequently suffered from hematuria. When the patient, on one occasion, declared she had voided bloody urine, she was put under the influence of chloroform and then catheterised, when perfectly normal urine was drawn off. At the same time a large needle was discovered in her hand, which, until then, she had been adroit enough to conceal, and which was evidently the cause of self-inflicted wounds, and the consequent bleeding from eyes and ears. The needle was put back into her hand before she recovered consciousness. A short time afterwards another bleeding from the ear occurred, but this time the puncture of a needle was plainly visible in the external meatus. Prof. Unverricht added to his report on the case his opinion that voluntary bleeding from skin, ears, and eyes—which recognized authorities like Jolly and Strümpell consider genuine—is always due to more or less clever simulation, and he believes that the cause of the bleeding will be found if persistently looked for.—*Lancet.*

**Examination of the Eyes of the Insane.**—M. ROGET reports having found in the greater number of general paralytics a characteristic rigidity of the pupil. Excavation of the papilla, which is not infrequently met with in health, may be regarded as the rule in the hereditarily predisposed, and especially in the insane having suicidal tendencies. With regard to the visual function of idiots and imbeciles, he states that when the idiocy began to develop during uterine life the idiots were, as a rule, hypermetropic, while those in whom idiocy developed after birth were emmetropic and myopic.—*American Practitioner and News.*

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## FORMULÆ.

By GEO. B. SOMERS, M. D., San Francisco, Cal.

**Antiseptic Mixture.** — CAVAZZANI describes the following mixture as a yellowish powder, with an agreeable smell of camphor and a very slight irritant action on wounds when first applied. He says that wounds do better when treated with this mixture than with iodoform alone:

| | |
|---|---|
| Iodoform | 55 parts |
| Salicylic acid | 20 parts |
| Bismuth subnitrate | 20 parts |
| Camphor | 5 parts |

—*Satellite.*

**Piperazin.**—German physicians are using piperazin as a solvent for uric acid. DR. J. H. BRIT gives it in doses of 15 to 30 grains in water, or in the following mixture:

| | |
|---|---|
| Piperazini puri | gr. xv |
| Aquæ dest. | ʒ v |
| Syr. aurant. cort. | ʒ v |

S.—To be used during the day.—*Medical Record.*

**Strontium Salts in the Treatment of Tapeworm.** — LABORDE, having observed that dogs taking salts of strontium were relieved of tapeworms, advised the following dose for men:

| | |
|---|---|
| Lactate of strontium | ʒ v |
| Distilled water | ℥ iv |
| Glycerine | q. s. |

S.—To be taken in five days; two tablespoonfuls each morning —*Médicine Moderne.*

**Wash for the Hands after Contact with Decaying Animal Matter.**—When surgeons have to handle materials from which there is grave danger of blood-poisoning, wash the hands well in warm water, using castile soap. Then immediately bathe them with—

| | |
|---|---|
| Caustic potash | gr. viii |
| Glycerine | ʒ v |
| Alcohol | ʒ v |
| Distilled water | ℥ iii |

Mix, and apply with a sponge or rag.—*National Druggist.*

**Rickets.**—KASSOWITZ prescribes:

| | |
|---|---|
| Phosphorus | gr. iii |
| Fresh olive oil | ʒ v |

S.—Ten drops daily, administered in warm milk.—*National Druggist.*

**Psoriasis of the Scalp.**—According to BESNIER the following ointment may be used if the disease be limited, and there be no irritation:

| | |
|---|---|
| Salicylic acid | |
| Pyrogallic acid | āā gr. xxiv |
| Ichthyol | gr. xlviii |
| Soft potash soap. | |
| Vaseline | āā ℥i |

S.—Apply cautiously on alternate days, with gentle friction.—*Medical News.*

**Gastralgia.** — HUCHARD (*Bulletin Médical*) recommends the following in dyspepsia when there is much pain and vomiting:

| | |
|---|---|
| Hydrochlorate of cocaine | gr. xv |
| Hydrochloric acid | m. lxxv |
| Elixir de garus | ℥ xviss |
| Distilled water | ℥ iiiss |

S.—A liquer-glassful after meals.—*Satellite.*

**Painful Gums in Children.**—
Cocaine hydrochlor.
Camphor powder---āā gr. iss
Glycerine-------------ʒ iiss
Essence of mint q. s. to flavor.

S.—Rub a little on the gums with the finger.—*Archives of Pediatrics.*

**Purgative for Young Children.**—
Castor oil--------------℥ ss
Infusion of coffee-------℥ ii
Sugar-------------------ʒ v
Yolk of egg-------------No. i

Mix and make an emulsion.—*Nouveaux Remèdes.*

## PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., Sacramento, Cal.

**Mortality for June.**—The deaths registered in 113 town districts of the State during the month of June, in a population of 801,273, correspond to an annual rate of 15.44 a thousand, the total mortality having been 1,031. 183 deaths were due to zymotic diseases, giving an annual rate of 2.74 a thousand. Of these, 17 were due to diarrhea and dysentery, 37 to cholera infantum, 29 to diphtheria and croup, 14 to scarlet fever, 7 to measles, 5 to whooping cough, 14 to typhoid fever, 3 to remittent and intermittent fever, and 8 to cerebro-spinal fever. 225 deaths were due to diseases of the respiratory organs, giving an annual rate of 3.37 a thousand. Of these, 137 were due to consumption, 59 to pneumonia, 24 to bronchitis and 5 to pulmonary congestion, the rate being for consumption and pneumonia, respectively, 2.05 and .90. 89 deaths were due to diseases of the heart. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 541,247, was 17.02 a thousand. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants was reported from San Francisco, the lowest from Fresno.

**Precautions Against Cholera.**—Telegrams from St. Petersburg convey the information that Asiatic cholera, which had been reported in Turkistan, has crossed the border into Russia on this side of the Caspian Sea. Late in June it is said to have broken out at Tzaritzin, on the Volga, thus bringing it into close proximity to the famine-stricken provinces, and within easy reach of railway communication leading to Odessa to the south, and Moscow and St. Petersburg on the north. To prevent its spread the government has established quarantine along the various railway lines, and maintains that its further progress will be prevented. Yet it can scarcely be expected that signal success will attend the efforts of even so powerful and despotic a nation, when the poverty of so many millions of ignorant people is accompanied by its inevitable concomitants—filth and general insanitary conditions. Germany and Austria have already sounded notes of warning, and are adopting preventive measures. Prof. Brasche, of Vienna, deems it improbable that, even should it become generally epidemic throughout Russia, it can secure a foothold in either of those countries, owing to their better sanitary condition. Our people of the United States also appear to be lulled into conscious security because of their remoteness from the starting point of the disease, and because of their better observance of the laws of hygiene. Nevertheless, it is doubtless true that there is not in the United States a city or town of considerable size in which there does not exist poverty and filth enough to establish foci for the development of a virulent epidemic of cholera, provided its germs be introduced. But those germs must be conveyed to us by means of individuals or their effects; they cannot be brought hither, or conveyed from one point or port to another, by means of the atmosphere, as can many other acute infectious diseases. Nor can they be taken into the system by inhalation; they must be swallowed and run the gauntlet of the stomach before they can reach the bowels, where alone in the system they find a soil in which they can become developed and produce their characteristic effects. In this respect they resemble the typhoid germ, for the prevention of which the thorough boiling of drinking water should always be practised. It is confidently believed, that if people were to avoid swallowing the germs of either of these diseases it would be impossible for them to become affected therewith. Both develop readily in filth outside the body, as well as within it. The dwelling and premises of each individual should, therefore, be put in order now. An ounce of prevention is worth a pound of cure. Health, like virtue, is the property of the individual; and although towns and cities are under municipal authority, yet each individual must do as he does with his religion, save himself. Wherever the reeking and inexcusable, disease-inviting cesspool and privy system prevail, they should be promptly abandoned. The means of preventing cholera are under our control. Dr. Rush, the father of medicine in America, said that the Author of all nature had kindly prepared an antidote for all natural evils, pestilential fevers forming no exception; and he looked forward to the time when our courts of law will punish cities and villages for permitting any of the sources of malignant diseases to exist within their jurisdiction. Lord Carlisle, when discussing the subject of epidemic diseases and their prevention, said: "The British Parliament has legislated, on the conclusions submitted, with the accumulation of demonstrable evidence, that the causes of epidemic, endemic and contagious diseases are removable; and that the neglect on the part of the constituted authorities to remove such causes, as far as they are obviously within their control, is a punishable offense." Neither cholera nor any other disease can any longer be regarded as an arbitrary infliction, but as a punishment for the violation of God's law of cleanliness and health. The weal or woe of mankind depends upon the observance of these laws; their non-observance will surely sooner or later breed pestilence and death, despite all the prayers of a united but inactive people. Then, again, individuals should recollect that municipal authorities never undertake adequate, general purification until epidemic influence is upon them, and until the grim messenger knocks at the door, and in his heartless round robs the community of one or more of its people. Then, and then only, when it is too late to be effectual in preventing disease, will local authorities awaken to a sense of their responsibilities and the dangers that are threatening. 'Tis then only they think of poor Memphis, and the sacrifice she made. Every individual should, therefore, inaugurate a system of sanitation for himself; and physicians everywhere should, as the conservators and guardians of health interests, teach them how, why and when this can be most efficiently done. A warning of approaching danger has reached us from afar; let us not wait until the appearance of the first case amongst us, for all authority and precedent teach us that filth tends largely to the development of cholera, especially when disturbed during the prevalence of an epidemic. The time, therefore, to remove filth and prevent cholera, is *now.*

**The Progress of Cholera.**—The foregoing observations having been written immediately after the news first reached us of the outbreak of cholera in Russia, it will be observed that my suspicions were well founded, that even the strong arm of the government would most likely be insufficient to prevent the spread of the disease, and that, in all probability, it would ere long be heard of from St. Petersburg in the north, to Odessa, on the Black Sea, at the southern border of the country. At this date (July 26th) it is reported as prevailing along the whole course of the Volga, and to be especially fatal at Kybink, Vogle, Orel, and other localities near Central Russia. The people in several places are said to have become panic stricken; and when the authorities in Astrakhan attempted to compel the laborers to fulfill their contracts, a riot ensued resulting in the killing of a number of the rioters. It is also said that in Moscow religious enthusiasts have banded themselves together, and while marching in procession are calling upon God to avert the progress of the plague. The mortality from it is everywhere appalling. On the 17th inst., 10 deaths are reported to have occurred in northern Paris, and Dr. Proust, of that city, believes there is the greatest probability that it will spread generally, and take the course it pursued in 1831 and 1847. Reports also announce its presence in Trieste, the principal seaport of the Austrian Empire. The government of Spain likewise expresses the belief that it will spread, and is urging the adoption of quarantine against all infected countries. England is awakening to the seriousness of the situation, and the Local Government Board has advised that every available means be adopted to prevent its ingress, and are counselling as to the best method of its treatment should it become epidemic. On the 21st inst., a suspicious death occurred in Detroit, Michigan, in the person of a gentleman recently from Glasgow, Scotland. Although, however, it appears improbable that the case was one of genuine Asiatic cholera, yet when it is known that this disease was once imported into America by means of old clothes which had been stowed away in trunks by immigrants from cholera districts of Scandinavia, the danger of its reintroduction at any time becomes apparent. We have been forewarned, let us therefore be forearmed; and although the most rigid sanitary precautions may not prevent its spread, provided the germs of the disease be imported, yet such measures will undoubtedly materially modify its virulence and fatality. It has very properly been termed a "filth disease." For the prevention of filth diseases the prevention of filth is indispensable. To this end there is but one method known, the rapid and continuous removal of all refuse matter. Reliance upon disinfectants, without first removing all solid and liquid filth, is a delusion and a snare. There are not sufficient chemicals in all of California to disinfect and render harmless the privies and cesspools of this city alone, without first removing their contents; and besides, disinfectants as ordinarily used, but substitute one bad smell for another. That "health is wealth," is an axiom as true as holy writ, and as an economic problem, it is susceptible of demonstration that for every death, in adult life, the State suffers a money loss of at least a thousand dollars. The worth in dollars and cents of a very few persons in any community would therefore soon more than meet the expense of a thorough cleansing and removal of the breeding places of cholera.

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## METEOROLOGY.

By J. W. ROBERTSON, B.A., M.D., San Francisco, Cal.

**Summary for June.**—*Temperature.*—The first three weeks of June were cool and, along the coast, cloudy and foggy mornings were of frequent occurrence. The last week was unusually warm, the thermometer registering 100° F. at many interior stations. Along the coast the hot northers rendered the days sultry, though the temperature did not rise above 80°.

*Rainfall.*—But a trace of rainfall was noted. In Southern California there was a slight excess, though at no station was over a fraction of an inch noted.

## California—Tabular Statement for June, 1892.

| STATIONS. | TEMPERATURE. | | | | | | RAINFALL. | | Mean Relative Humidity | WEATHER. | | | WIND. | FURNISHED BY— |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Highest | Lowest | Mean Highest | Mean Lowest | Mean Daily Range | No. of Days Rain Fell | Total Rainfall | | No. of Clear Days | No. of Fair Days | No. of Cloudy Days | Prevailing Direction. | |
| Auburn ......... Cal. | 68.7 | 94.0 | 53.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | S.W. | Southern Pacific Company. |
| Berkeley ........ " | 57.7 | 78.0 | 46.0 | 68.5 | 50.8 | 17.7 | 0 | 0.00 | 79.0 | 15 | 5 | 10 | S.W. | Obs. University of California. |
| Colfax ........... " | 71.1 | 96.0 | 40.0 | ---- | ---- | ---- | ---- | 0.60 | ---- | ---- | ---- | ---- | S.W. | Southern Pacific Company. |
| Eureka ........... " | 53.6 | 65.0 | 43.0 | ---- | ---- | ---- | 6 | 0.45 | ---- | 8 | 11 | 11 | N. | Weather Bureau Dept. Agr. |
| Fresno ........... " | 72.8 | 106.0 | 48.0 | 88.5 | 57.0 | 31.5 | 1 | 0.06 | 40.0 | 25 | 4 | 1 | N.W. | " " " |
| Keeler ........... " | 73.3 | 102.0 | 43.0 | 86.3 | 60.3 | 26.0 | 0 | T. | 24.0 | 23 | 5 | 2 | S.W. | " " " |
| Los Angeles .... " | 63.8 | 88.0 | 46.0 | 75.5 | 52.0 | 23.5 | 2 | 0.06 | 72.0 | 12 | 17 | 1 | W. | " " " |
| Monterey ....... " | 63.2 | 82.0 | 50.0 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | S. | Southern Pacific Company. |
| Napa ............. " | 63.3 | 87.0 | 43.0 | 75.0 | 51.8 | 23.2 | 1 | 0.09 | 67.0 | 22 | 6 | 2 | S. | Station Napa Insane Asylum. |
| Oakland ......... " | 58.6 | 80.0 | 46.0 | 72.4 | 52.1 | 20.3 | 0 | 0.00 | 84.0 | 15 | 11 | 4 | W. | Chabot Observatory. |
| Paso Robles .... " | 69.5 | 100.0 | 48.0 | ---- | ---- | ---- | ---- | 0.38 | ---- | ---- | ---- | ---- | S. | Southern Pacific Company. |
| Red Bluff ....... " | 71.8 | 105.0 | 46.0 | 85.6 | 57.9 | 27.7 | 4 | 0.27 | ---- | 25 | 5 | 0 | S.E. | Weather Bureau Dept. Agr. |
| Sacramento ..... " | 68.0 | 98.0 | 46.0 | 82.3 | 53.6 | 28.7 | 0 | T. | 61.0 | 18 | 11 | 1 | S.E. | " " " |
| San Bernardino " | 67.7 | 97.0 | 42.0 | 84.8 | 50.6 | 34.2 | 2 | 0.08 | 62.0 | 24 | 4 | 2 | W. | A. K. Johnson, M. D |
| San Diego ....... " | 62.0 | 75.0 | 51.0 | 68.4 | 55.7 | 12.7 | 1 | 0.13 | 77.0 | 15 | 10 | 5 | W. | Weather Bureau Dept. Agr. |
| San Francisco .. " | 56.8 | 73.0 | 47.0 | 62.9 | 50.8 | 12.1 | 0 | T. | 81.0 | 17 | 10 | 3 | W. | " " " |
| Santa Barbara .. " | 61.0 | 78.0 | 47.0 | 69.8 | 52.2 | 17.6 | 0 | 0.00 | 72.0 | 21 | 6 | 3 | S.E. | Hugh D. Vail. |
| Santa Cruz ...... " | 60.1 | 82.0 | 39.0 | ---- | ---- | ---- | 0 | 0.00 | ---- | ---- | ---- | ---- | ---- | W. R. Springer. |
| Yuma ........... A. T. | 83.7 | 116.0 | 52.0 | 100.3 | 67.3 | 33.0 | 0 | 0.00 | ---- | 24 | 6 | 0 | W. | Weather Bureau Dept. Agr. |

Blank (----) indicates data missing.

Occidental Medical Times

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: AUGUST, 1892.

## THE EQUITABLE LIFE ASSURANCE SOCIETY AND ITS MEDICAL EXAMINERS.

The Equitable Life Assurance Society, one of the largest and strongest life companies in the world, recently announced through its agents, that, after a certain date, a change would be made in the fee allowed for medical examinations. Hitherto, in common with all first class companies, the medical examiner's fee has been $5.00, an extra fee being allowed for microscopical examinations, when deemed necessary. This sum was irrespective of the amount of premium or insurance, though when the insurance was over $20,000, a second examination by another examiner was required, the regular fee being also allowed in this case. The Equitable proposed to substitute for these rates, the following sliding scale:

| Amount of Insurance. | Fee. |
|---|---|
| $1,000 and under | $2 00 |
| Over $1,000 and under $5,000 | 3 00 |
| $5,000 and under $20,000 | 5 00 |
| $20,000 and under $50,000 | 10 00 |
| $50,000 and upwards | 20 00 |

This scale may at first sight be misleading and the physician might suppose that a very liberal rate had been provided. The following figures, however, will show the loss to the medical examiner and the very substantial gain to the company in fees that have been saved. According to the *Coast Review*, the Equitable wrote in California, in 1891, 899 policies, amounting to $4,246,000, giving an average per policy of $4,723.02+. The 23 companies doing life business in California, wrote in 1891, 6,734 policies, amounting to $25,383,998, giving an average per policy of $3,769.52+. It will therefore be seen that the average fee of the medical examiner for the Equitable's business would be $3.00, and that the same figure would obtain on the Equitable's scale when applied to the business of all the companies. Referring to the "Pocket Index," published by the Spectator Company, we find that the Equitable Life has in force to-day $233,118,331 of insurance, representing 230,424 policies, averaging in amount $3,493. It will therefore be seen that the average fee of *all* medical examiners of the company would be $3.00. This showing, while implying that the great bulk of insurance business is done in small policies, does not bring out a very important fact. With few exceptions, the larger policies of $50,000 and upward, are written in the larger cities, policies of $25,000 even being scarce outside the big centres of population. In many of these large cities the company is represented by a general agency, employing a medical examiner, or more than one, at a fixed salary. These men do all the work required of them for this sum, and the amount of the policy would neither increase nor diminish their incomes. We therefore see that the great army of medical examiners throughout the country would lose about one-third of their income from this source. Why was this scale of fees suggested? We believe the foregoing figures are sufficiently explanatory. Every company is deeply interested in making the best possible showing, particularly in its "expenses for new business," for these are days of high commissions and liberal concessions in many directions. If a company in any one direction can effect a saving of one-third, it would undoubtedly endeavor to make the gain.

There is another aspect to this question, that should as deeply interest the insurance companies as an apparent saving in the present, *i. e.*, its bearing upon their future stability. All life insurance is based upon the "life expectancy" of the assured, as calculated from the mortality tables in use. A fair percentage of the assured must live out their expectancy or the business would cease to be profitable, or even possible. The mainstay of any company, therefore, will be the assumption only of good "risks," which is only to be ensured by the efficiency and honesty of its medical examiners. All companies make every effort to secure the former by careful selection, when possible, and permanent appointment, and to ensure the latter by rendering the examiner independent of agents, and paying a fair fee. The conscientious medical examiner will proceed just as carefully, and spend just as much time, when examining an applicant for $500 as for $50,000. The sum involved matters not to him, and he is concerned only with the eligibility of the life before him. When a company grades its scale of remuneration for the *same* service by a standard that the medical examiner does not recognize, it implies that a less careful scrutiny is demanded for "$1,000 and under $5,000" than for the latter, and higher figures. It certainly puts a premium on bad work, and tacitly agrees to it. Does this add to the stability of a business based on the assurance only of picked lives? We think not, and we believe that the wrecks of the many friendly societies and benefit associations point a moral that means, not so much faulty insurance methods as defective examinations and $1 examiners. The English medical journals not long since, commenting upon the fact that some of the insurance companies were agitating the abolition of medical examinations, stated that one had actually adopted this plan. Our contemporaries failed to note the fact that this company has really not abandoned "medical examinations," but has substituted for them examinations by incompetent and unqualified persons. It is not pretended that the applicants, irrespective of physical conditions, will receive policies; but on the contrary, that careful supervision will be exercised, so as to exclude all but the best risks. This is simply limited examination by unqualified persons, and is on a par with the theory of some American insurance companies, that for small policies "a urinary analysis is not demanded."

The very obvious point that we wish to impress upon the profession is, that any proposed reduction in the already modest fee should be promptly met by refusal of acceptance. Should this be delayed, or should even a sufficiently encouraging acquiescence be noted, the sliding scale would certainly be adopted. The Equitable Life Insurance Society claims to be the strongest insurance company in the United States, and no one denies that it ranks amongst the very best. If this company can secure the services that its examiners have hitherto rendered, at lower rates, how long would the other companies take to adopt as low a rate? Competition in legitimate lines is most desirable, but applied to fees for professional services it is equally harmful to all concerned. The fee of $5 for an examination for insurance, conscientiously performed, is quite moderate, and the company that cannot afford to maintain this rate courts investigation of its management.

## NEURO-TECTON.

We have received a pamphlet bearing this title, and issued by a company of the same name, having its headquarters at 110 Geary street, San Francisco. The brochure contains an introductory history of this remarkable remedy, which "is not a panacea," but "is a specific of specifics," and "has cured every case of functional nerve disorder to which it has been applied—it will do this always." It is further stated that the nature and components of the drug will be fully explained to any reputable physician using it. There is appended a number of testimonials of the character usual in these cases. The pamphlet concludes that "The Neuro-tecton remedies are administered in San Francisco only by DR. S. F. LONG and DR. J. P. LE FEVRE." How this latter clause agrees with the statement that the component parts, etc., will be fully revealed to any reputable physician, we do not clearly see.

This alleged remedy, and the results ascribed to it, have been freely exploited in the columns of the daily papers. A large amount of advertising has been obtained; some of it free, no doubt, but the greater part, of course, at "regular rates" for "reading matter." Whatever may befall the editor, the business manager of a paper has usually a commercial head that is level. With the purposes or objects, merits or demerits of the nostrum we are not concerned, but we are interested in the motives that can have induced DR. S. F. LONG and DR. J. P. LE FEVRE to have formed such an unholy alliance. These gentlemen are regular physicians, members of medical organizations which they voluntarily joined, and whose obligations they voluntarily assumed. DR. LONG is a graduate of the Medical Department, University City of New York, and DR. LE FEVRE of the Medical Department of the University of California. What justification these gentlemen can find for the line of conduct they have pursued, is difficult to perceive. The matter has been taken up by the San Francisco County Medical Society, and we trust will be pushed to a judicial and impartial conclusion. We therefore feel that, pending the verdict of the Society, further comment or criticism would be premature.

## NOTES.

### The Pacific Druggist.

*The Pacific Druggist*, formerly published in San Jose, has been moved to San Francisco. W. M. Searby, Professor of Materia Medica and Dean of the College of Pharmacy, will be the editor, and under his charge we expect that the *Druggist* will become a worthy representative of California pharmacy.

### The National Popular Review.

This journal, a preliminary announcement of which we have already made, has appeared. The first number contains 66 pages, the size of page, style and type being similar to that of the *Century* magazine. There are several illustrations and a number of articles, selections, and abstracts on popular subjects.

### Dr. Wm. Ellery Briggs.

Dr. Wm. Ellery Briggs who, as our readers are already aware, has been visiting the medical centres of the old world during the past six months, will arrive in Sacramento early in August, to resume his practice. A letter from Paris, under date of May 10th, that was published at page 418 of our last issue, should have been credited to the doctor, but through an error his name was omitted.

### A New Medical Register.

The Board of Examiners of the Medical Society of the State of California are now preparing for the publication of the sixth edition of the Official Register. As the usefulness of this work depends upon its correctness, every physician in the State is requested to send his address, as well as that of any practitioner that has recently located in his vicinity, to the Secretary, Charles C. Wadsworth, 526 Sutter st., San Francisco.

### A Warning to Patent Medicine Vendors.

The guarantees accompanying frauds of the most transparent description are well known, nor are these confined to patent medicines, for dupes are plentiful in every walk of life and it needs only the skilful angler to hook them. Many patent medicines are sold with guarantees, often in the shape of substantial sums of money that can be forfeited if the remedy fails to produce the alleged result. A careful perusal of the guarantee will usually show a substantial string attached that insures the manufacturer from possible loss. Continued immunity may perhaps breed contempt for the public, and this in a measure explains an interesting decision reported in *The Lancet*. It appears that the Carbolic Smoke Ball Company, trading in a commodity of that name, offered as a specific for influenza, gave a guarantee of $500 that any person using the nostrum should thereafter enjoy immunity from the disease. A Mrs. Carlill purchased the remedy, used it, and, in common with most people, suffered from influenza. She brought an action for the recovery of the guarantee, and in spite of the earnest efforts of the company's lawyers, received judgment for the full amount. This is exceedingly refreshing and instructive, as ***possibly*** some of the American guarantees may be so loosely worded that a handsome sum would reward the careful investigator.

### Alcoholism or Epilepsy.

On July 2d Walter Bassett, a young man about 23 years of age, was arrested in San Francisco by two policemen, and charges of drunkenness and battery entered against him. In the prison he showed signs of epilepsy, and was removed to the prison hospital, where he was examined by the Police Surgeon. In answer to questions, he related the following facts: About three years ago he was struck on the head by falling timber. Subsequently he had a great deal of trouble with his head, occasionally having an epileptic fit. Through the advice of some one he shipped as a sailor on a vessel bound for Honolulu. During the voyage he became worse, and on arriving at Honolulu entered a hospital, where he remained three months. He was not benefitted by his stay here, and was advised by the attending physician to return to San Francisco. He became better, and was able to work at the plumbing trade. On the day of his arrest he had been working hard, and was on his way home when he felt symptoms of an epileptic seizure. He remembers sitting down in a doorway to wait until he should feel better, but recollects nothing more until he found himself in prison. The officers who made the arrest stated that they found him lying in a doorway, and on attempting to make him move on, he resisted and fought desperately. One of the officers received a kick in the face which split his lip, and the other was injured about the body so that he was laid off duty for two days. On learning that the prisoner was an epileptic, his trial was postponed until the latter part of July, and he was allowed to go home on his own recognizance. The prisoner was rather roughly handled by the officers, and this fact has been severely commented upon by some of the San Francisco papers. Under the circumstances the police can hardly be censured, and though the occurrence is an unfortunate one, it was certainly unavoidable.

### An Explanation and an Apology.

In the June number of THE MEDICAL TIMES there appeared an amusing satire on medical specialism, entitled "The Reflex Club." This was credited in good faith to the *Deutsche Medicinal Zeitung*, from which it had been translated for us. We were, therefore, pained to learn from the *Times and Register* that the article by Dr. G. B. Sangree had originally appeared in that journal—December 12, 1891. Our contemporary upbraids us for taking things second-hand from a "European purloiner," accuses us of a want of patriotism for neglecting American ideas, and winds up by advising us to "go to ——." We do not think that we deserve to "go to ——," as we were perfectly honest in our course. The piratical *Zeitung* is alone to blame in this matter, and we agree with our indignant contemporary that no fate is too severe for the barefaced and discourteous piracy that too frequently is seen in medical journalism. THE MEDICAL TIMES has always been careful to give proper credit for anything it has published, and we think that in this respect we have sinned as infrequently as any journal. It is, however, obviously impossible to remember the original source of every article, and if the immediate source from which a selection has been obtained be given, a journal cannot be held culpable. We suffer continually at the hands of our Eastern contemporaries in the appropriation of matter without any credit whatever. There is no excuse for this dishonesty, but nothing is gained by constantly alluding to the fact. Turning from this aspect of the question, we derive some consolation from the fact that the *Lancet-Clinic* has published a translation of Dr. Sangree's article from *La France Médicale*, and is included with us in the *Times and Register's* anathema, though this was needless, as it is now the summer season in that sultry city. Our Cincinnati contemporary is sometimes imposed upon in its translations, and not long since published "from the German" an item about "maggots in the nasal cavity" that happened in California, and can be found at p. 601 of vol. v of this journal. While consoling ourselves with these reflections we were amazed to find in the *Medical Record*, of June 25, 1892, the following paragraph: "The Reflex Club meets in Sacramento, Cal., and publishes acrimonious but instructive proceedings in THE OCCIDENTAL MEDICAL TIMES. The club is at present at work over headaches, which Professor Fallopius and Drs. Strabismus, Causticus, and Rectus each claims as his own." We are too subdued to comment upon this, but we await with interest to ascertain where our hopelessly involved contemporary may be advised to "go to" by the *Times and Register*.

# SOCIETY PROCEEDINGS.

## SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

*Regular Meeting, June 21, 1892.*

The President, G. C. SIMMONS, M. D., in the Chair.

**Removal of a Gall Stone from the Rectum.**—DR. W. R. CLUNESS reported a case in which he had removed a large gall stone from the rectum. The patient had previously suffered from pain in the region of the gall-bladder. Considerable difficulty was experienced in removing it owing to its unusual size. The stone weighed 87 grains.

**Pseudarthrosis of the Hip Joint.**—DR. T. W. HUNTINGTON reported this case, exhibiting the specimen. He had formerly regarded this case as one of arthritis deformans, and had so reported it. There was a clear history of injury to the hip-joint, but at no time had there been a diagnosis of fracture. The specimen showed that there had been an unmistakable intracapsular fracture of the neck of the femur. The entire neck had disappeared, and the false joint was formed by the head of the bone resting upon the small trochanter and rotating upon the inner side of the upper extremity of the femur. The detached fragment derived its vascular supply from the ligamentum teres, which was intact.

**Extensive Gastric Ulcer—Papilloma of the Larynx.**—DR. G. A. WHITE reported these cases, exhibiting the specimens. The ulcer was of unusual size, involving a space of 5 inches by ½ to 1¼ inches of the surface of the greater curvature. There was no perforation, though, in places, the wall of the viscus was very thin. The patient died from inanition. The papillomatous growth was about the size of a cherry, and was attached to the left vocal cord. The tumor had caused death by obstruction; it was not diagnosed during life. The patient had been in the hospital but a few hours, and a diagnosis of edema of the larynx, that had been made by a physician before admission, was accepted provisionally.

DR. T. W. HUNTINGTON said the removal of a tumor of this character from the larynx, by external incision, was not difficult. Regarding stomach trouble, we had learned much during the last decade, especially in the direction of lavage, which he considered of great efficacy in gastric derangements. Medicinally there were two agents that he considered of great value: hydrochloric acid and nux vomica, especially the latter, of which large doses can often be given with much benefit.

DR. D. SHOEMAKER said that chemical tests for the presence or absence of certain constituents of the gastric juice are now very generally used. By chemical analysis we are enabled to treat a case scientifically, the analysis indicating the proper course to pursue.

**Dr. G. L. Simmons** mentioned that he had removed a growth of the character shown by Dr. White from the larynx of a patient some years ago. The growth proved to be malignant and an extension of the disease occurred that subsequently proved fatal. In gastric troubles we must learn to divide the structural diseases of the stomach from the functional; the latter are often curable while the former yield indifferent results to treatment. He believed nux vomica was a most valuable agent.

**Dr. J. R. Laine** said he had seen the case of laryngeal tumor shown by Dr. White. Inspiration was markedly more affected than expiration. There were attacks of dyspnea, followed by almost immediate relief. He had told the patient that he was probably suffering from edema of the glottis, but had not made any extended examination.

**Dr. J. H. Parkinson** said the specimen exhibited showed the danger to which we were all prone, of allowing our judgment to be influenced by the opinion of another previously expressed in the same case. He had seen serious mischief result from this fact. Great progress had been made in the accurate diagnosis of gastric troubles by the newer methods, but he did not think that the clinical results were so much improved. In prescribing pepsin preparations it should be borne in mind that some containing large quantities of alcohol were almost inert. The glyceroles and essences were more reliable.

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## SAN FRANCISCO COUNTY MEDICAL SOCIETY.

*Regular Meeting, June 14, 1892.*

The President, D. W. Montgomery, M. D., in the Chair.

**Syphilitic Ulceration of Conjunctiva.**—**Dr. H. Pischl** reported a case of syphilitic ulceration of the conjunctiva [patient exhibited] which he regarded as extremely rare. The patient became infected three years ago, the source and means being unknown. He first complained of headache in the afternoon and plugging up of the nose. In the summer of 1890 a physician found ulceration on the hard palate and in the nose. He ordered mercurial inunctions and gave iodide of potassium with good result. In July, 1891, the speaker first saw the case. Patient was then suffering from dacrocystitis of the left side, soon followed by the same in the right eye. This universal swelling of the glands, scars on the skin, ulceration in the nose and on the hard palate, perforations of the latter and extensive loss of the nasal septum left no doubt as to the nature of the disease. He ordered general and local specific treatment with the desired result. After an interval of six months, patient had appeared this morning complaining that his right eye had been inflamed for the last three weeks. Both lids are now swollen, the conjunctiva is red and chemotic. The lower portion of the conjunctiva is, to a great extent, occupied by an ulcer with infiltrated base and edges covered with greyish yellow secretion. On the lower lid is an ulcer on the lachrymal point extending to the caruncula. There are also small ulcers on the palpebral conjunctiva of both lids, and groups of ulcers and yellow nodules on the upper half of the ocular conjunctiva, externally and internally. Very few cases of this affection had been reported.

**Spindle Celled Sarcoma of Plantar Surface of Foot—Lympho-sarcoma, Lympadenoma.**—**Dr. J. Rosenstirn** reported the following cases: Case I.—*Spindle celled sarcoma*—A woman, 54 years old, came to him April 12, 1892; she had suffered from pain in the sole of her left foot for 12 years. A tumor had developed then gradually, which had been removed at St. Luke's Hospital two years ago, after which she went East. As the pain and swelling returned, she consulted Willy Meyer, of New York, who found signs of an old syphilis of the throat, which he treated with inunctions of mercurial ointment and iodide of potash internally. She did not improve and returned to San Francisco. Part of the velum was gone and the bridge of the nose collapsed. Investigation as to the cause of infection pointed to the husband who died years ago of some ulcerative disease. The foot, on the sole, showed a cicatrix along the middle line from the base of the phalanges to the calcaneo-cuboid joint. At its posterior part there was a tumor the size of a hen's egg—tenderness on pressure and fluctuation were pronounced. The speaker placed her on anti-syphilitic treatment, but the pain and swelling remained. He punctured, but did not find anything. In a few days a small tumor the size of a hazel nut made its appearance, protruding from the puncture; it proved to be a spindle-cell-sarcoma. On April 17th he amputated the foot at Chopart's line, making an anterior flap. As to the etiology, he believed the tumor grew upon a syphilitic basis—possibly preceded by a syphiloma which developed into a sarcoma. He had not been able to find any literature which mentioned spindle-cell sarcoma of the plantar surface. The patient recovered almost without accident, except a very narrow marginal slough of the upper flap. The tumor involved the flexor pollicis brevis and the deeper parts, but left the bone unaffected. CASE II.—*Lympho sarcoma, lymphadenoma*—A married woman, thin and worn out, called upon him the same day. She had had cough for some time, though upon examination no tubercle bacilli were found in the sputum. There was pain in the axilla and in the left arm. Some time previous she had noticed a tumor the size of a walnut in the left axilla; recently it had grown very rapidly and the accompanying pain interfered with sleep. This tumor was now hard and scarcely movable, the left radial artery was pulseless. The tumor extended below the pectoralis major, to the fifth rib. There were several tumors in the anterior and lateral cervical region. On April 17th he operated, making an incision 16 cm. in length. The tumor was adherent everywhere, and although great caution was exercised the posterior circumflex was cut; he finally succeeded in enucleating the whole mass. The operation was so prolonged that he did not touch the other tumors, but at a second operation on May 1st, 38 tumors were found between the sterno-cleido-mastoid and the trapezius—on both sides. There was a tear in the internal jugular vein which was tied. The patient is now comfortable and free from pain. There seems to be a protuberance or bulging at the 3d and 4th ribs with the sternum, which may be a tumor protruding from the thoracic cavity. She continues to take arsenic which she commenced when coming under the speaker's care. In this case the several stages of the new growth were apparent from the slightly enlarged, freely movable gland to the enormous tumor in the axilla, the lymphadenoma and the lympho-sarcoma side by side.

**THE PRESIDENT** said it was a question among syphilographers how far carcinoma developed from syphilitic neoplasms, but with sarcoma it was different. Hutchinson has called attention to the cell proliferation of syphilis and Esmarch has mentioned the fact that syphilitic tumors supposed to be sarcomas melted down under anti-syphilitic treatment.

**DR. A. BARKAN** said he doubted whether syphilitic tumors ever became sarcomatous.

**DR. C. G. KUHLMAN** said we must regard sarcoma and carcinoma as new growths of a special type not syphilitic. Virchow shows that syphilitic tumors undergo three changes: swelling, proliferation and retrograde metamorphosis. We must accept for the malignant and non-malignant tumors an embryotic germ in the new born child that develops at a later period. We cannot look upon the changes as functional proliferation; the formation of carcinoma and sarcoma have inherent characteristics. Syphilitic virus will produce not metamorphosis or proliferation, but degeneration. Clinical history does not warrant us in assuming that irritation takes any part in the formation of neoplasms—for instance, callouses forming on the tuberosities of the ischium or corns and bunions never assume neoplastic characteristics.

**DR. ROSENSTIRN**, in replying, said that irritation was an etiological factor that could not tolerate the exclusion of the idea that cancer must have a specific germ, and cited as examples the cancer of the chimney sweeps, cancer of the lips, esophagus, cardia, pylorus and cervix uteri, as under the Cohnheim theory it would be necessary for the embryonic germ to invade just these particular parts. Regarding the transition from syphilitic to malignant neoplasms, when these tumors are discovered in time and fall into competent hands that recognize and treat them properly these changes do not take place. Where these cases have existed for a long time, we have in the continuous irritation favoring degeneration, an etiological factor.

**DR. ROSENSTIRN** asked Dr. Sherman if he had had any experience in Chopart's operation with anterior flap.

**DR. SHERMAN** said that he had never operated after Chopart, as his operations had never been forward of the tibio-astragalar joint. He preferred Syme's operation, as the stump was very useful either with or without an artificial foot.

**Dr. Rosenstirn** said that a Syme could not be made in this case as the plantar flap could not be used. Probably the malignancy came on after the first operation.

**Advertising in the Daily Papers.**—**Dr. J. C. Sundberg** called attention to the fact that certain members of the Society were guilty of unprofessional conduct in causing or allowing their names to be connected with advertisements that have appeared in the daily papers.

On motion the matter was referred to the Committee on Ethics to report at the next meeting.

## CALIFORNIA ACADEMY OF MEDICINE.

*Regular Meeting April 16, 1892.*

Luke Robinson, M. D., in the Chair.

**Oophorectomy—Ovariotomy During Pregnancy.**—**Dr. H. Kreutzmann** presented two appendages removed that morning; there were small cysts of both ovaries. The patient, a married woman, 24 years of age, had been a sufferer at intervals for three years. At the commencement of her illness there had been an attack confining her to bed for three months. At that time there was a bloody discharge, and this was repeated a month ago. The patient had never been pregnant. A diagnosis of cysts of both ovaries was made and an operation advised. This was performed with no unusual occurrence, except that there was considerable oozing. This could not be arrested, as the bleeding surface was too large, so a piece of iodoform gauze was put in, the end projecting between the sutures, to remain for 24 hours He had heard of this procedure, but had never tried it. The cysts and tubes had been removed uninjured. He believed there was some pyo-salpynx, as both tubes were filled.

The speaker also reported two cases in which he had removed the ovaries in pregnant women:

Case I.—A married woman, aged 34 years, came to the Polyclinic July 19, 1891. She had never previously been pregnant. Had gone over time, but had no other symptoms of pregnancy. On examination a tumor of the right ovary, about the size of a fetal head, was easily made out; there was no pain. At that time she was six weeks pregnant. About the middle of August an operation was performed at the German Hospital. There was a pregnant uterus of about three months, and a unilocular ovarian cyst. The patient made a good recovery, the wound healing by first intention. A bandage was worn over the scar, which became somewhat dark, enlarged to about the breadth of the finger, and quite itchy. March 4, 1892, she was delivered after an easy labor, the scar decreasing in size, though it is still quite dark in appearance.

Case II.—The patient, æt. 24 years; last pregnant 18 months ago, applied for treatment about March 16th. She had gone over time two weeks. On examination a growth was found on the left side that enlarged too fast to be the pregnant uterus. A diagnosis of left ovarian cyst with pregnancy was made, and a few days later an operation was performed at the German Hospital. A large multilocular cyst of the left ovary was found. This had to be tapped before removal; no liquid escaped through the trocar, but it ran out alongside the instrument, which was therefore withdrawn and the walls squeezed together so that no fluid escaped into the cavity. The fluid evacuated was tinged with blood, owing to a twisting of the pedicle. The patient made a good recovery, and she is to go home next week.

When a diagnosis of pregnancy and ovarian tumor was made, the question arose as to what should be done. The following courses might be adopted: (1) Immediate operation. (2) Interrupt pregnancy. (3) Wait till delivery and involution have occurred. (4) Wait, tapping, if necessary, during pregnancy, and adopting suitable measures at time of delivery. The first case reported had been seen by a physician who, in good faith, advised the patient not to have the tumor removed. This the speaker regarded as a poor procedure, as it might at any time become necessary to tap, and tapping, even for diagnostic purposes, is now a thing of the past. It was found that after tapping there were always numerous adhesions due to exudation of fluid from the puncture in the sac. As he had already stated, we might have to tap during pregnancy, which would not be good, and then complications might arise, such as twisting of the pedicle. This would be serious, as it would be likely to set up acute peritonitis and gangrene. Again, as the uterus grows the abdominal cavity becomes smaller, too small for both the uterus and tumor. In this case there might be a rupture and much harm be done. He remembered one case where rupture had taken place, the malignant germs were disseminated, and the patient died of a general sarcomatous condition. As a large percentage of these tumors are malignant, this might happen. Even though it did not occur during pregnancy, it might take place in labor. If these accidents occurred it would be best to sacrifice the life of the child to save the mother. Taking everything into consideration, it was best not to tap. Interrupting pregnancy might be justified if we found that the mortality of ovariotomies during pregnancy was greater than that of ovariotomy at other times, but it was not. It was Schröder, he thought, that had operated on 12 pregnant women without a death, and in other cases the mortality was 6 to 10 per cent. This speaks favorably for ovariotomy during pregnancy. There are cases where it would be best to interrupt pregnancy before operating, as where we find the patient so run down that abortion might be likely to follow the operation. Here it would be best to abort, and when recovery had taken place to do the operation.

**Dr. J. F. Morse** said, some time ago he had reported a case of extrauterine pregnancy, of 7 years standing. A laparotomy was performed and the fetus removed. Terrific hemorrhage was encountered and the patient became almost moribund. A strip of gauze was taken and the whole sac plugged. The patient rallied and the following day the abdomen was reopened, the gauze removed, and the sac washed out. The patient is alive and well to-day. This case was similar to one reported by Lawson Tait, in which that operator had packed a towel into the cavity to stop the bleeding. The speaker would reopen the abdomen, and cleanse it thoroughly after removing the gauze.

**Dr. Dudley Tait** said, he could only share Dr. Kreutzmann's views on operating on the abdomen during pregnancy. It was only a few years since it was an axiom not to open the abdomen during pregnancy. Later on tapping came in, and still later ovariotomy through the vagina, but the results were poor as the hemorrhage was considerable and the scar opened wider during delivery. He believed the reason the results were better when the operation was done on a pregnant woman was because the surgeon was more careful and the cysts were small. In contradistinction to these are the cases of fibroids where we do not operate. As to tapping, he did not believe that it should be completely discarded. It was a good thing in doubtful tumors, especially those of Douglas' pouch. With a small needle sterilized and a clean vagina, one runs no risk. One case he had under observation for 8 months, was that of a cyst of the broad ligament, which had been diagnosed by another physician as ascites. The speaker aspirated with a hypodermic needle and made a microscopical examination, which confirmed his diagnosis. He then aspirated and drew off 5 quarts of fluid. There has been no recurrence and the patient is now quite well.

**Dr. W. B. Hayes** read a paper on "Typhoid Fever, its Cause and Treatment," [published at p. 444.]

**Dr. H. E. Sanderson** said, that in testing the urine in typhoid lately, he had used the Erlich test a number of times. The rose-red color is quite in contrast to that of normal urine. He had also tried it in examining the urine from scarlet fever cases and found it gave the same reaction. He mentioned a case at present under observation, that is in the fourth week of typhoid. The morning temperature is 105° F., decreasing during the day, and this has continued for 4 or 5 days. The pulse was 115–120 and fairly strong. Large doses of quinine were used and also cold baths, but without effect. The heart acts well; there is no abdominal tenderness; the tongue is characteristic; roseolar eruptions was well marked. The spleen is slightly enlarged. He did not believe in a milk diet, as it is an excellent nidus for bacteria. He preferred to give broths. In this case there is no diarrhea, and three-fourths of the cases he had seen were constipated. In reply to an inquiry the speaker said he gave the quinine in the morning and evening, in doses of 3 grains each. One night he gave 10 grains, but next morning the temperature was 105° just the same.

**Dr. D. D. Crowley** believed that a milk diet was proper, as broths and beef tea had a tendency to cause more or less irritation of the intestinal tract. He thought the application of cold was a good thing, but did not believe in submerging the patient in a cold bath. The gradual application of cold by bottles of cold water placed at different parts of the body, one at each thigh, then others at the chest, etc., in 5 or 6 hours can lower the temperature two degrees or more. In giving quinine, 30, 40, or even 50 grains in 24 hours could be used. He believed in thorough antisepsis of the intestinal tract, and gave calomel at the beginning in fair sized doses. It is not necessary to have passages every 4 or 5 hours.

**Dr. Dudley Tait** said the culture of the bacillus is easy and can be made in the office. A small quantity of a weak solution of carbolic acid should be added to the water in making the gelatine plates, according to Koch. The aspect of the plate is peculiar, a bluish opalescent color characteristic of the bacillus. Regarding toxins, there is no doubt of their action; most of the grave symptoms are due to the secretion of the microbe, not the microbe itself. He had used Erlich's reaction in typhoid fever and found it good. In the diagnosis the discovery of the bacillus did not help much at the bedside. By using a hypodermic needle to aspirate the spleen, the microbes could be found, but this was with poor results. The speaker's experience of the disease during two years in San Francisco varied, especially from that seen in France and the south of Germany. We never find here those grave cases where there are calcareous deposits, and where two or three yards of the ileum are ulcerated. As criterions we should take the temperature, heart, pulse, and respiration, especially in emaciated cases. He asked Dr. Sanderson if there might not be a tuberculous lesion in his case. He remembered one case at the French Hospital where there was a morning temperature of 103°. The sputum was examined and Koch's tubercle bacilli was found. The diet was the most important point. It was better not to be too hasty in giving solid foods; two-thirds of the cases of relapse were from this cause. Milk should be used. He did not think because it would breed bacilli, that it should not be used. Beef tea will also breed bacilli.

**Dr. Sanderson** said it was hard to diagnose between acute miliary tuberculosis and typhoid, but in this case everything went to show that it was typhoid.

**Dr. G. Gross** said that transmission of the disease could take place through the air. This was shown by the Bernal Heights epidemic of a few years ago; it was also demonstrated in Paris. This is important, as we are not careful enough of visitors. Calomel in large doses, 8 grains every six or eight hours, it is well known will disinfect the stools at the beginning; some do not use it after the eighth day. The cold pack acts also on the nervous system, is tonic, and is not so brutal as submersion. In one case where there was hemorrhage, the speaker had used ergotin to good advantage. When giving quinine it is best to give it in proper doses and at the right time. Give massive doses and one to three hours before noon. The first thing to do was to clean out the bowels. This was the first time he had heard that milk should not be used. He thought it always best to give fluids, as they favored diuresis.

**Dr. Tait** said he would have to differ from Dr. Gross about transmission by air. He was in Paris when the experiments mentioned were performed. Plates exposed in the hospital were put away and no bacteria were found on them. The dust of prisons in Germany was examined and the bacillus found. He admitted that the air might be contagious, but these cases were rare. If dejecta are disseminated in the air, the danger is, even then, not great. He did not forbid the presence of visitors, and always destroyed the feces.

**Dr. D. W. Montgomery** said he thought it was in London some years ago, where those who were exposed to the wind that blew from an old open drain got typhoid fever. When he was going to college, he contracted typhoid. Another inmate of the same house was also attacked, and died. Under their room was a basement, a bath, and a cellar underneath. Under this was an old, closed drain; closed by a dishonest plumber. He had no doubt that they contracted the fever from the old drain, and it could only reach them through the cellar. Water is certainly the principal cause; and in Vienna, since new water works have been established, typhoid is almost *nil*. Some cases are caused by distribution of the bacilli by the air.

**Dr. Martin** read a paper on "Entomic or Subjective Sounds, Commonly Called Tinnitus Aurium." [To be published.]

**Dr. W. E. Hopkins** had performed the operation twice for chronic deafness.

The last case was a month ago. The patient was almost totally deaf, and after the operation, when last heard of, he could hear better than in the other ear.

**Dr. T. F. Rumbold** said, he had only operated once, and that was not a success. He could not agree with Dr. Martin, that the sounds come from the labyrinth; they could not be produced there, but only by the muscles in the middle ear.

**Dr. D. D. Crowley** inquired what proof was offered that the sounds were either in the labyrinth, or external to it?

**Dr. Martin**, in replying, said he had not stated that the cause was in the labyrinth; he had distinctly said that the cause was external to, and only perceived by, the labyrinth. These cases of tinnitus from hyperemia or anemia were no doubt produced by the labyrinth. In reply to Dr. Crowley, his position was proved by the condition in which the ear is found. An operation, even for experimental purposes, where it is absolutely harmless, is advisable in all cases where there are noises.

## SPECIAL CORRESPONDENCE.

### LONDON.

*The Eye, Ear, and Throat Hospitals in London.—Improvements in the Slums.—Norway an Ideal Pleasure Resort.—Leprosy and Segregation.—The Influence of a Fish Diet in Leprosy.—The Germ Theory of Disease.—Sacramento again.*

Since my letter from Paris (MEDICAL TIMES, Vol. VI, p. 418), I have spent several weeks visiting the eye, ear, and throat hospitals of London. In these specialties much less progress is being made there at present, than on the continent of Europe. Aseptic ophthalmic surgery is not carried out at Moorfield's, and new methods of operating are tried less frequently in London than in Paris or Berlin. The scientific workers in ophthalmology at present seem to be the Germans, while the Parisians are perhaps the most venturesome in experimenting in new methods of treatment and operation. While in London I listened to a very scholarly lecture on "The Advances of our Knowledge of Inflammation of the Eye," by Professor Leber. This was delivered at a meeting of the Ophthalmological Society of Great Britain. The work done at this Society contrasted very unfavorably with that seen at a meeting of the French Society the previous month. A number of men who have done so much for ophthalmology in London in the past have died within the past 15 years, and among their successors there is no one conspicuous as a scientist, original investigator, teacher, or operator. In the throat hospitals one sees some good work, but of the treatment of the ear one sees there, the less said the better.

Since my previous visit, in 1877–79, the condition of some sections of the city have undergone much improvement. The poorer parts of the Mile End have changed greatly for the better. Through the aid of many well directed charities great numbers of men's clubs have been opened, in which there are good reading-rooms and libraries, and where popular lectures on topics of practical utility to the laboring man are given frequently. In this way the public houses are less frequented, and drunkenness, which is still alarmingly common in the squalid portions of the city, is certainly less than 15 years ago. If this improvement should progress for half a century London may then lose the credit of having the most miserable, squalid, and debased population of any city in the world. The People's Palace and Toymbee Hall have had an important influence in elevating the miserable inhabitants of White Chapel. The efforts at reaching the people has been less through religion, or the emotions, than by intellectual and social teachings, and assisting them in making their homes more comfortable and attractive.

On our way to Berlin we spent a fortnight in Norway, Sweden, and Denmark. Norway is quite an ideal place to spend a vacation. The people have not yet been spoiled by tourists. They are still honest, simple, interesting, and never extortionate in their charges. The beauty and grandeur of the Fjords are not surpassed by any scenery in Europe, and none in America, except the Yosemite.

The experience of Norway with leprosy should be a lesson to us on the Pacific coast. This dreaded disease has existed to a considerable extent in this country ever since the days of the crusades, when it became so wide-spread over Europe. In other countries segregation had been carried out, and the disease hardly exists to-day in Europe, except in Norway, where no well directed efforts at isolation were made until about 30 years ago. In fact, thorough segregation has never been carried out, as there was no great unanimity of opinion in regard to the method of communication. But during a period of 30 years of imperfect segregation the cases have been reduced about two-thirds, which ought to be evidence that free communication is a good method of spreading the disease. Even if we cannot agree as to the method of infection, we should strive to carry out any plan that will show such good results as segregation has in Norway.

There is no evidence in the history of Norway to support the theory of Jonathan Hutchison that the lepra bacillus is conveyed through the fish, as fish is still almost the exclusive diet of a large portion of the Norwegians. But an explanation of the diminution of the disease must be found in the less intimate intercourse between leprous and healthy individuals.

By THE MEDICAL TIMES' report of the discussions at the State Society meeting I see there are men in the Golden West who still remain unconvinced of the germ theory of disease. Here one cannot long continue in doubt of the influence of bacilli in many diseases. In fact pathology has mostly resolved itself into the study of the various microbes which are found to be peculiar to certain diseased conditions. It seems very evident that this is the correct pathology, and when we have found the remedies that will prevent the propagation of these microbes, or destroy them in the system, we shall have solved the problem of specific medication.

I am looking forward with pleasure to meeting my Pacific coast friends, and getting to work again in Sacramento, about the 10th of August.

LONDON, June 20, 1892. WM. ELLERY BRIGGS.

## CORRESPONDENCE.

### The Need For Improvement in the Examination of Persons Charged With Being Insane.

*Sir:* The experience of asylum physicians shows the necessity for improvements in the examination of persons charged with insanity. Yet, there is no doubt in my mind that the fault is to be found in the method, and not in the men who make the examinations. It is simply impossible to properly examine a case of acute mania, or an obstinate, vicious patient, in the brief time, and such inappropriate places as are allotted for such examinations. Many patients are brought before the Commissioners in a state of mind, and condition of personal uncleanliness, that precludes anything but the most superficial examination. Few asylum physicians would like to speak positively of their new cases upon their first day's examination, and yet they are more favorably placed to make proper examinations than the average physician called upon by the court to express an opinion of a patient seen for the first time, and for a limited period. Cases are received at asylums that are not physically fit to be transferred, and whose condition might be ascertained by the examiners before commitment. We, for instance, have received a quiet patient, with well-marked acute pneumonia; another, pulseless, and in a state of collapse, and a third was carried into the house and died within twenty minutes. It is safe to say that these patients were injured by being transferred to an asylum, and that a careful physical examination would have revealed these diseases. But as already stated, the circumstances surrounding the examinations are not favorable to a critical examination and a proper diagnosis. It is my belief that every populous city should have, connected with its city or county hospital, proper accommodations for a limited number of patients (from two to ten) who are suspected of insanity. Such a hospital should be placed in charge of the City or County Physician, and all cases whose insanity was doubtful could be detained for observation until their true mental condition could be determined. It would likewise furnish suitable accommodations for those whose state of health would not permit of their safe removal to asylums, and at the same time allow of proper treatment until their condition would justify their removal. A large proportion of insane patients come from lodging-houses, hotels and such places, where they are strangers, and having no one to care for them, are by necessity placed in the city prison, which place is most certainly an improper one for their detention. The expense of such hospitals for temporary restraint, as suggested, would certainly not be heavy, and would be an advance in the direction of ameliorating the condition of those unfortunates who are friendless and deprived of their reason. I am, etc.

F. W. HATCH, M. D.,
Medical Director State Insane Asylum, Agnews, Cal.

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*Sir:* Referring to an editorial in the June number of THE MEDICAL TIMES, relative to greater care being exercised "in the examination of persons charged with being insane," I fully endorse all the statements contained therein. I do not remember having seen one single commitment, since my association with the Napa State Asylum for the Insane, that has been filled out in its entirety. While all the questions found in our commitments are of importance, still, some are of greater importance than others, and not infrequently do we find that those, which, if properly answered, would be of the greatest service to our staff of physicians as leading up to a proper classification and a judicious treatment, are passed over in silence. As examples I may note the following: Not many months ago a commitment was received, and question No. 17, "Is there any fixed delusion? If so, state what it is," was answered as follows: "Yes; he wants money." If such a mental condition constitutes a delusion, and a delusion is an evidence of insanity, then I apprehend that few individuals can be called perfectly sane. In another commitment request No. 27, "State what class of insanity," was answered, "Second-class." In one of our recent commitments, question No. 16, "Is the patient suicidal or homicidal?" is answered "No." Question No. 18, "In what way is the patient dangerous to be at large?" is answered, "Because he is insane." One would naturally suppose that if an insane person was neither suicidal nor homicidal, that he or she would not be markedly dangerous, and could be cared for in some other place rather than a public institution. In another commitment, question No. 16, "Is the patient suicidal or homicidal?" is answered "No." Question No. 18, "In what way is the patient dangerous to be at large?" is answered, "Dangerous to herself." If not suicidal, why dangerous to herself? In still another commitment, request No. 14, "State why you consider patient insane," etc., the following statement is made: "Used 30 grains morphine in 24 hours, and 15 grains cocaine. After using drug is possessed of hallucinations, does not sleep, does not eat, is unable to provide for himself." Question No. 16, "Is the patient suicidal, homicidal, destructive, or incendiary?" is answered, "No." Question No. 18, "In what way is the patient dangerous to be at large?" is answered, "Dangerous to himself." Now, in the first instance, the law states: "That if the judge shall be satisfied that the facts revealed in the examination establish the existence of the insanity of the person accused, and that it is of a recent or curable nature, or of a homicidal, suicidal, or incendiary character, or that from the violence of the symptoms the said insane person would be dangerous to his or her own life, or to the lives or property of others, if at large, he shall direct the sheriff," etc. The experience gained in this asylum of those addicted to the morphine habit is, that they are rarely, if ever, permanently cured. If an individual has reached a point in the use of the drug, when he can take 30 grains of morphine and 15 grains of cocaine in 24 hours, can the case be properly called a recent one? If the patient be not suicidal, homicidal, destructive or incendiary, how can he possibly be dangerous to be at large, or dangerous to himself? Again, he does not eat, sleep, and is unable to provide for himself. Are those conditions in themselves indicative of insanity? The facts are, according to the law and the commitment of this patient, there was no well-grounded reason for his incarceration in one of our State asylums; all of which, at the present time, are filled to overflowing. Is it to be presumed that the medical examiners were ignorant of the law? In another commitment of a *gentleman*, to request No. 23, "state alleged cause of insanity;" the statement is made, "*change of life.*" In another commitment of a lady, the statement is made, "that she has had several attacks before; also, that she has been in an asylum before, and that her father was insane." It is also further stated, "that the lady has never been pregnant, but has earnestly desired children.'

To request No. 23, "state alleged cause of insanity," the following statement is made: "Probably of uterine origin." To request No. 24, "state diagnosis," the following statement is made: *Puerperal mania*. Many more samples might be given of a nature corresponding to the above, but these must suffice. It might be supposed that these examples had been selected for the occasion, but such is not the case; while I am glad to say that they do not constitute a majority of our commitments, still, I can assure you that they represent a very respectable minority of all commitments as received at this asylum, and as such are indicative of either gross carelessness or lamentable ignorance, or both, upon the part of not a few of our medical examiners. An error of opinion, founded upon careful and intelligent investigation, while unfortunate, is not in the main censurable; but an error of opinion founded upon ignorance and a careless investigation may, and often does, border upon the criminal; and while this is true in every department of life, it is more than true in the commitment of persons to an insane asylum, where individuals are deprived of their liberty, and their immediate relatives branded with the possible heredity of an unsound mind. I am fully aware that it is not always an easy task to determine the mental integrity or otherwise of a person charged with being insane; but the more arduous the duty to be performed, the greater should be the intelligence and caution brought to bear in the execution of the allotted task. An ignorance of the work to be done should never constitute an excuse for its unfaithful performance, and especially is this true when the examiner has it in his power to accept or reject the appointed position. Not infrequently more time should be spent in making a careful study of the peculiarities of the person charged with being insane, and I am heartily in accord with the statement expressed in your editorial relative to the establishment of places of detention, in connection with the different county hospitals, where the person can be held under observation for as many days as shall be conducive to a thorough and exhaustive study of the case, resulting as it would in the majority of cases in an intelligent commitment upon the one hand, or a just discharge upon the other. I am, etc.,

A. M. GARDNER, M. D.,
Resident Physician Napa State Asylum for the Insane.

## OBITUARY.

### DR. HENRY FERRER.

DR. HENRY FERRER was born on the 15th of October, 1850, in the city of Santiago de Cuba. His parents, wealthy Cubans, anxious that their child should enjoy all the possible advantages of a cosmopolitan education, sent him at the age of 8 years to Bordeaux, where he remained in school until he went to Heidelberg. His primary instruction had been received in France; in Germany he received his secondary training. Extremely fond of study, and gifted with a most retentive memory, he was always among the first in his classes, and won the favor and friendship of all his teachers. Leaving the gymnasium he entered the medical school at Heidelberg, where he remained a student until his graduation, in 1870; showing up to that time the same application to his work and the same ardor for learning, so commendable in a young man whose wealth might easily have led astray from the arduous and rigorous path of steady labor.

In July, 1870, the Franco-German war broke out, and young Dr. Ferrer took service with the Germans as assistant surgeon, with Dr. Fehr. At that period his eyesight troubled him a great deal, and it was owing to that circumstance that the young surgeon turned his attention to ophthalmology, in which, as a specialist, he later achieved such marked success. He soon left service in the field to go to Vienna, Berlin and London, constantly following the best masters in the study of what had become his specialty. In London he became the assistant of Prof. Soelberg Wells, and continued preparing himself for actual practice until 1874, when he came to San Francisco and opened an office with Dr. W. F. Smith.

This partnership lasted but a short time, and Dr. Ferrer separated from his associate to work alone. Success at once crowned his efforts, and, from the start, a very large practice claimed the greater part of his time. His spare time, that is to say that which his practice left him, was absorbed by studies in bacteriology and microscopy, branches in which he had become an expert. Later on he applied himself to the diseases of the middle and internal ear, and earned a merited reputation for his operations on the mastoid process, on which subject he published many interesting communications, among others a "Report of Cases of Disease of the Mastoid Process, with Remarks."[1]

Dr. Ferrer married, in 1881, a young lady born in San Francisco, of German parents, Miss Clara Hoesch. No children were born of this union. Mrs. Ferrer, whose devotion to her husband was unbounded, shared his studious labor. She had learned the art of mounting his microscopical specimens, and would prepare them for him in a manner that many of us have often times had occasion to admire. She was also his typewriter, and in that capacity helped him to prepare his numerous articles for the periodicals to which he was a contributor. Dr. Ferrer had been in poor health for some time, and it was at Santa Barbara, where he had gone for a change of air, that he died, on the 22d of October, 1890, having but just completed his fortieth year.

He was a member of the State Medical Society, the San Francisco County Medical Society, the San Francisco Microscopical Society, and the California Academy of Sciences. He was oculist to the German Hospital, to the San Francisco Polyclinic, and to the San Francisco Hebrew Orphan Asylum. In his death the members of the San Francisco Medical Benevolent Society deplore the loss to themselves of one of their brightest members, whose character they mostly admired, and to the profession of one whose masterly attainments in many branches, but particularly in his specialty, had procured for him a foremost place in its first ranks.

ISAAC RIVAS.
J. SIMON.
J. CALLANDREAU.

# REVIEWS AND NOTICES.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONERS' INDEX; a Work of Reference for Medical Practitioners. Edited by P. W. Williams, M. D. 1892, tenth year. New York: E. B. Treat; pp. xii, 644. Price, $2.75.

This issue of the Annual shows, in some respects, improvement over those of previous years. It is, however, only just to say that the publishers, while maintaining the original style, have, from time to time, enlarged the volume and its scope. The dictionary of new remedies, to which 79 pages are devoted, is exceedingly valuable, and we only wish that in the excellent table given it had been possible to include some of the leading incompatibilities. For the rest of the work the illustrations are numerous, and as a rule, well executed, a notable exception being those on pages 392–93. The subject of recent advances in bacteriology is well treated by Dr. Armand Ruffer, and medical photography is a new subject introduced by Andrew Pringle. There is an article on sanitary science in 1891, dealing mainly with English inventions; and articles on improvements in pharmacy and new inventions, whose purpose is not very clear. A number of advertising pages are included, which detract from the merits of this otherwise excellent work.

# MEDICAL NEWS.

## LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held July 8, 1892, the following physicians having complied with the law and the regulations of this Board, were unanimously granted certificates to practise medicine and surgery in this State:

Wilson Wesley Adams, Los Angeles; Rush Med. Coll., Ill., Feb. 20,'83.
Marcus De L. Allen, Delano; Med. Dept. Univ. Louisville, Ky., Mar. 1,'77.
Wm. C. Angell, San Francisco; Bellevue Hosp. Med. Coll., N. Y., Mar 1,'68.
Henry J. Brink, Wheatland; Med. Dept. Univ. City N. Y., Mar. 13,'83.
Philip Collischonn, San Francisco; Med. Dept. Univ. California, Nov. 10,'91.
Alfred Aldis Dunton, Jr., San Jose; Med. Dept. Univ. Michigan, June 30,'81.
George W. Fowler, Santa Clara; Med. Dept. Univ. Pennsylvania, May 6,'92.

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[1] Knapp's Archives of Otology, Vols. XVII and XVIII.

**John Edwin Frazier, Randolph, Iowa; Louisville Med. Coll., Ky., Feb. 26,'85.**
**V. A Howeth, Pomona; Jefferson Med. Coll., Pa., Mar. 12,'73.**
**Denison A. Hurst, Pomona; Starling Med. Coll., Columbus, O., Feb. 17.'54; Jefferson Med. Coll., Pa., Mar. 12,'78.**
**Lemuel Frank Jones, San Diego; Med. Dept. Univ. Pennsylvania, Mar 14,'71.**
**Joseph John Knowlton, Fresno; Marion Sims Med. Coll., Mo., Apr. 25,'92.**
**William Van D. Nichols, Oceanside; Med. Dept. Univ. Pennsylvania, May 1,'85.**
**Jas. Osborne, Bakersfield; Univ. of Glasgow, Scotland, Apr. 30,'69; Aug. 1,'72.**
**Augustus D. Pitts, Mendocino City; Long Island Coll. Hosp., Mar. 23,'92.**
**James Stoddart, San Francisco; Royal Coll. Phys. and Royal Coll. Surg., Ed. and Fac. Phys. and Surg., Glasgow, Scot., Jan. 23,'88.**
**Harvey W. Strader, Sacramento; Coll. Phys. and Surg., Maryland, Mar. 13,'85.**
**Joseph von Wirthern, San Francisco; Med. Dept. Tulane Univ., La., Apr. 6,'92.**
**James Albert Williams, Berkeley; Coll. Phys. and Surg., Cincinatti, O., June 19,'76; Bellevue Hosp. Med. Coll , N. Y., Mar. 1,'78.**

CHAS. C. WADSWORTH, Secretary.

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## Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from June 20, 1892, to July 20, 1892.

**First Lieutenant Thomas U. Raymond, Assistant Surgeon, will proceed at once to Portland, Oregon, on public business in connection with the examination of recruits. Upon completion of this duty Assistant Surgeon Raymond will return to his proper station, Vancouver Barracks, Wash. Par. 2. S. O. 87, Dept. of the Columbia, June 21, 1892.**

**Colonel Joseph R. Smith, Surgeon, Medical Director, having completed the inspection imposed by Par. 1, S. O. 57, 59 and 79, c. s., from this office, issued in compliance with instructions from the Major General Commanding the Army, dated May 5, 1892, now stands relieved from further duty at these headquarters to enable him to comply with Par. 9, S. O. 107, c. s., A. G. O. Par. 1, G. O. 8, Dept. of Arizona. June 30, 1892.**

**Major David L. Huntington, Surgeon, is relieved from the temporary duties assigned him in Par. 1, S. O. 66, c. s., from this office, and is in accordance with Par. 9, S. O. 107, c. s., A. G. O., announced as Medical Director of the Department. Par. 2, G. O. 8, Dept. of Arizona, June 30, 1892.**

**Colonel Joseph R. Smith, Surgeon, having reported at these headquarters, in compliance with Par. 9, S. O. 107, c. s., Headquarters of the Army, is announced as Medical Director of the Department. G. O. 13, Dept. of California, July 2, 1892.**

**Captain Louis Brechemin, Assistant Surgeon, will report three times a week at the recruiting rendezvous in this city for the examination of recruits, at 10 o'clock A. M., and return to his station at the Presidio of San Francisco, Cal., at 1 o'clock P. M. Par. 1, S. O. 73, Dept. of California, July 2, 1892.**

**The journeys performed by Captain R. R. Ball, Assistant Surgeon, from Fort Townsend to Seattle, Wash., and return, on June 9, 18 and 30, 1892, on public business in connection with the examination of recruits, in obedience to instructions from these headquarters dated April 5, 1892, are confirmed. Par. 1, S. O. 97, Dept. of the Columbia, July 8, 1892.**

**First Lieutenant Thomas U. Raymond, Assistant Surgeon, will accompany the Command of Lieutenant-Colonel Theaker, 14th Infantry, ordered to Wardner, Idaho. Par. 2, S. O. 99, Dept. of the Columbia, July 12, 1892.**

**Captain Kneedler, on being relieved from duty at Fort Logan, Col., will report in person to the Commanding Officer, Fort Mason, Cal., for duty at that station, relieving Captain Harry O. Perley, Assistant Surgeon.**

**Captain Harry O. Perley, Assistant Surgeon, on being relieved from duty at Fort Mason, Cal., will repair to Washington, D. C., and report in person to the Surgeon-General, U. S. Army, for duty in his office.**

**Captain William H. Arthur, Assistant Surgeon, will proceed to Portland, Oregon, on public business, in connection with the examination of recruits. Upon completion of this duty, Assistant Surgeon Arthur will return to his proper station, Vancouver Barracks, Wash. Par. 1, S. O. 103, Dept. of the Columbia, July 19, 1892.**

**Under the requirements of Army Regulations 1662, and letter from the Adjutant General of the Army of March 4, 1892, Colonel Joseph R. Smith, Surgeon, Medical Director, will make an inspection of the Presidio of San Francisco, and on the completion thereof return to his station in this city. Par. 2, S. O. 79, Dept. of California, July 20, 1892.**

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## ITEMS.

**Dr. A. Milliken** has removed from Susanville, Lassen county, to Fort Jones, Siskiyou county, Cal.

**The Bovinine Co.**—The J. P. Bush Mf'g. Co. has changed its name to that of "The Bovinine Co." and has leased the premises No. 65 South Fifth Avenue, where all correspondence should be addressed.